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TREASURY DEPARTMENT

BUREAU OF WAR RISK INSURANCE

R. G. CHOLMELEY-JONES, Director

# MILITARY AND NAVAL INSURANCE

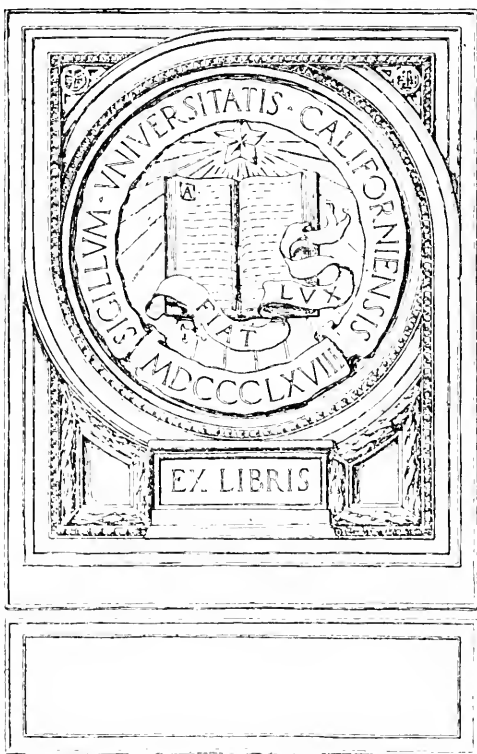
AND MILITARY AND NAVAL  
COMPENSATION CLAIMS  
AS A RESULT OF THE WORLD WAR

JUNE 30, 1919



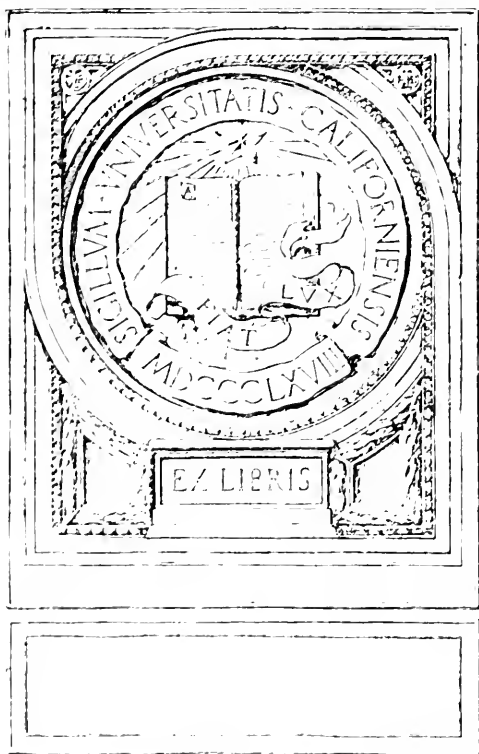
WASHINGTON  
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1920

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BUREAU OF WAR RISK INSURANCE  
R. G. CHOLMELEY-JONES, Director

# MILITARY AND NAVAL INSURANCE

AND MILITARY AND NAVAL  
COMPENSATION CLAIMS  
AS A RESULT OF THE WORLD WAR

UNIV. OF  
CALIFORNIA

JUNE 30, 1919



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TREASURY DEPARTMENT,  
Document No. 2863,  
*Bureau of War Risk Insurance.*

## LETTER OF TRANSMITTAL.

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TREASURY DEPARTMENT,  
BUREAU OF WAR RISK INSURANCE,  
OFFICE OF DIRECTOR,  
*Washington, January 19, 1920.*

The Honorable the SECRETARY OF THE TREASURY.

SIR: I have the honor to submit the following statistical report which has been compiled by the Actuarial Division, under the direction of Mr. William Macfarlane, actuary.

For some time past, the bureau has been gathering and classifying important statistics concerning the deaths and disabilities resulting from the World War with relation to the payment of the military and naval insurance and compensation as provided by the war risk insurance act.

In an effort to make the entire contents of the report easily accessible to all who have occasion to examine it, the statistical tables have been supplemented and afforded vivid illustration by alternating them with a series of graphic charts.

I am quite convinced that the information contained in this report is not only of great present value, but will serve to preserve a store of material of great interest and assistance to those seeking knowledge in the years to come regarding United States casualties.

Therefore, it is urged that you approve that this report be published by the Treasury Department.

Respectfully submitted.

R. G. CHOLMELEY-JONES,  
*Director.*

Approved for publication:

CARTER GLASS,  
*Secretary of the Treasury.*



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# INTRODUCTION.

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## SCOPE OF THESE DATA.

It is the purpose of this report to present to the public certain basic facts concerning the deaths and disabilities incurred by members of the American forces at home and abroad, with relation to the payment of the military and naval insurance and compensation as provided by the war risk insurance act. It presents an exposure of those cases only which came under observation in the period between April 6, 1917, and June 30, 1919. No attempt is made to give results based on refined statistical analysis. The report is unique in that it presents statistics relative to war-time mortalities and disabilities with the correlation of these statistics with one of the most comprehensive protective systems ever offered by any government to its fighting forces.

It is not yet possible to obtain the aggregate mortality experience among those who insured themselves, because final results of exposure to war hazard, even for cases which come under observation of the Bureau of War Risk Insurance, and data relative to the total number of exposures are not yet available. Material is being collected which will make a more comprehensive treatment possible and this will be presented when the facts pertaining to the casualties arising in or directly traceable to the service have been secured in their entirety. While, due to the inevitable destructive character of human conflict and the necessarily precarious work of preparation therefor, education may not be directed toward the prevention of essential war mortality, it may be directed toward the prevention of diseases that develop among the fighting forces, or, in fact, in any body of persons living in congested circumstances. Therefore, it is hoped that this presentation will serve as a contribution to the facts already ascertained with regard to war mortalities and war disabilities and will aid in the establishing of a program the aim of which will be to add a further check upon the spread of diseases resulting from like abnormal conditions.

## COMPENSATION AND INSURANCE.

The study is divided into two parts: the first, presenting the facts in their relation to insurance; and the second, in their relation to compensation, no attempt having been made to correlate the two. The cases analyzed are exclusively those in which settlements have been actually negotiated, in accordance with the war risk insurance act, with the persons who have made claims for benefits. However, certain statements are made concerning those who have not as yet been allowed an award. Tables and diagrams, together with certain explanations and deductions supplementing them, are used as a means of telling the story.

The insurance study presents 104,485 deaths and 565 disabilities of a permanent and total nature. The compensation experience covers 25,251 deaths and 32,876 disabilities of either a permanent or temporary nature ranging from total disability to 10 per cent

disability. The two death groups overlap as do also the disability groups, since the same casualty may result in both an insurance and a compensation award. Therefore, the conditions surrounding a death or a disability may be represented in both studies.

The reader who is interested primarily in insurance as administered according to the war risk insurance act and its relations to war hazard will find the desired facts in the first study. Anyone interested in compensation also administered according to the war risk insurance act and its relations to war hazard will find his facts in the second study. While one interested not so much in the subject of insurance and compensation, but seeking information in regard to the deaths and disabilities incurred during active service or incident to the service, with all the conditions affecting each case, will use for a mortality study the insurance death group, and for a disability study the compensation disability group. These two groups represent as nearly as possible the death and the disability experiences of the war.

The insurance death group when complete will represent about 90 per cent of the total deaths due to service, since about that proportion exists between those insured and the total number who served with the fighting forces during the war. The compensation death group is not representative because, not only are the beneficiaries limited to those falling within a permitted class, but, with the exception of wife and children, they must also prove dependency before an award can be made.

The compensation disability group, when the experience is completed, will represent the total disabilities due directly or indirectly to service, since there is no limitation except that the disability be at least 10 per cent of a total disability. The insurance disability group is very restricted as it contains only those insured persons who sustained disabilities of a permanent and total nature.

#### SOURCES AND PROCESSES OF COMPILATION.

The collection, the preparation and the compilation of the data have involved both technical and tedious processes. Since the sources of the material and the accuracy with which these processes have been carried out have a fundamental bearing upon conclusions, a brief résumé of both is given.

With regard to the sources of the data presented, it may be said that the "claim papers" compose the material. A notice of death or disability received from any source by the Bureau of War Risk Insurance is considered sufficient basis for the opening of a claim. Some of these first facts emanate from The Adjutant General's Office, some from the Navy Department, and others from the commanding officers of the various organizations. Often letters from relatives give information of deaths or disabilities hitherto unreported from any official source. Immediately the necessary machinery is set in motion to justify an award of some kind according to the rights of the case under the law, either of insurance, or compensation, or both. However, in instances in which the mere notice of death has been received numerous cases have developed in which it has proved extremely difficult to locate any relatives enti-

tled to privileges as beneficiaries under the law. Such circumstances have necessitated an enormous amount of correspondence in order to ascertain the address of persons to whom moneys may be payable and to inform them of their rights. All correspondence, affidavits, birth certificates, medical reports, etc., pertaining to a case are filed in a folder. The material is carefully examined as it comes in and as soon as sufficient evidence is received to establish a valid claim under the act, payments of insurance or compensation, or both, are approved. Many of these files become voluminous before the claim can be finally awarded. These folders contain the history of every case from the first notice to the final award, and it is from these files that the desired statistical facts are taken. The facts thus collected are transcribed on record cards which are to serve as permanent abstracts of the cases. These cards carry the pertinent facts in a condensed form and are brought up to date as further developments occur relative to change of beneficiaries, amount of award, etc.

On June 30, 1919, the material on the record cards for all cases upon which insurance or compensation had been awarded were taken as the basis for this report. The information was transferred from the record cards to perforated tabulating cards by codifying the material and using Hollerith punching machines. In order to facilitate the sorting processes and tabulations, cards of three colors were used; one color indicating contract insurance, one automatic insurance, and one compensation. The primary step in the sorting processes consisted in the separation of claims for which awards had been made from those for which no awards had been approved. The next step was the separation of the death cases from the disability cases in both of these foregoing groups. Further divisions were effected by a separation of groups of cases upon which awards had been terminated, those in which awards or beneficiaries had been changed, and those upon which awards were actively running.

The report is presented with the feeling that the maximum degree of accuracy has been attained. Definite rules governed the selection of data in order that the most authentic information should be recorded. All processes of collection, preparation, and compilation were done twice independently.

#### DIGEST OF PROVISIONS OF WAR RISK INSURANCE ACT.

(As operative on June 30, 1919, with respect to payments of Military and Naval insurance and compensation.)

The original war risk insurance act was passed in 1914 and provided insurance against war-time hazard, on bottoms and cargoes of American merchant vessels. Later, in June, 1917, this act was amended to establish a seamen's division to insure the lives of officers and crews of American merchant vessels. However, the war risk insurance act as is generally understood by the term was passed October 6, 1917, and provided both insurance and compensation to members of the military and naval forces. Amendments have been passed from time to time regarding the restrictions set forth in this act. At the

present time a bill radically enlarging the provisions of the war risk insurance act is before Congress.<sup>1</sup>

#### INSURANCE BENEFITS.

[Art. IV, war-risk insurance act.]

The act of October 6, 1917, made provision for two widely differentiated classes of insurance, contract and automatic insurance.

#### CONTRACT INSURANCE.

Contract insurance is protection for which a person in the active service of the United States after October 6, 1917, has made application and represents a contract between the individual and the Government. The policies may be taken out in amounts from \$1,000 to \$10,000, in multiples of \$500. Those desiring to avail themselves of the contract insurance offered by the Government made application for it. The application indicated the amount of the policy and the person or persons to whom the benefits should be payable at the decease of the insured. To keep the insurance in force the insured was obligated to make monthly premium payments.

The most usual procedure for the payment of such premiums was for the insured to authorize the deduction of the necessary amount from his pay by the War or Navy Department. The class of beneficiaries in whose favor contract insurance might be drawn was limited and it was imperative that the insured keep within this permitted class in choosing the person or persons to whom benefits were to accrue at his death. This permitted class included spouse, child, grandchild, parent (the definition of which term was made to include grandparent, father or mother, father or mother through adoption, step-parents of either the person in the service or of the spouse), and brother or sister.

The insured was permitted to name one or more of this list as contingent beneficiaries in the event of his death. However, at any time he was privileged to change his beneficiary or beneficiaries without their consent and to designate any other or others within the permitted class. In event no beneficiary has been made by insured, or if one had been designated but had died before the insured, or if he had named a person not in the permitted class, the laws with reference to the descendant of intestated personal property of the State of legal residence of the insured govern the choice of beneficiaries.

If the insured had sustained a disability of permanent total degree, the law provided that he receive payment of insurance from the date of disability irrespective of whether or not he had received a discharge from the service. Upon the death of the insured, or, at the time permanent total disability is incurred by the insured, insurance is payable. For a \$10,000 policy an annuity of \$57.50 is payable each month for 240 months at death. The amount of the annuity at the end of this time, using a 3½ per cent rate of interest as specified by the act, is \$13,800. In case the insured is permanently and

<sup>1</sup> This amendment, known while pending before Congress as the "Sweet bill," has passed Congress and was signed by President Wilson Dec. 24, 1919. The full text of the amendment is to be found on p. 153 in the appendix.

totally disabled an annuity is payable throughout his lifetime. Provision has been made by bureau regulation for the payment of life annuities.

#### AUTOMATIC INSURANCE.

Automatic insurance is entirely different from contract insurance. Between April 6, 1917, and October 6, 1917, there were no provisions for contract insurance. Persons in active service dying or incurring total disability of a permanent nature within this period and up to February 12, 1918, were protected by the insurance known as automatic insurance, or insurance without application, which automatically accrued to said disabled persons, or in the event of death to certain beneficiaries. This is in the nature of an arbitrary grant and resembles war risk term insurance only in that it is payable in 240 monthly installments. The monthly payments are always to the amount of \$25. These payments, of course, are not adjusted according to the law of probability to payments made by the insured, inasmuch as no premium payments are exacted.

The permitted class of beneficiaries in automatic insurance is more restricted than in contract insurance. As in the case of contract insurance the person himself is the beneficiary in the event of permanent total disability sustained in the service, but, in the event of death the permitted class of beneficiaries includes only widow, child, mother, or father, in the order named, each class exclusive of the others.

#### COMPENSATION BENEFITS.

[Art. III.]

Compensation benefits are completely distinct from those of insurance. An insurance award has no influence or bearing whatsoever on a compensation award for the same death or disability, and vice versa. Insurance is a Government contract with an individual, whereas compensation is a Government grant which is discontinued upon the termination of the contingency necessitating it.

Compensation is for "death or disability resulting from personal injury suffered or disease contracted in line of duty \* \* \* : *Provided*, That for the purposes of this section, said officer, enlisted man, or other member shall be held and taken to have been in sound condition when examined, accepted and enrolled for service." This provision works to particular advantage in the case of men disabled with chronic diseases like tuberculosis. Although the first onset of the disease may have been prior to the date of enlistment or draft and the incipient stage may have been overlooked by the medical examiners at the time of acceptance into the service, nevertheless it is in practice assumed that the disease has been aggravated or reactivated by the conditions incident to service.

#### COMPENSATION FOR DISABILITY.

At discharge, or within five years after discharge, a person disabled may put in his claim for compensation. The claimant must prove that the disability occurred in or was aggravated by the service or developed within the year after separation from the service from conditions therein, or must present a certificate obtained

from the Director to the effect that the injured person at the time of his discharge or resignation, was suffering from injury likely to result in death or disability, and the disability must be to the extent of at least 10 per cent. Upon receipt of necessary proof, an award of compensation may be approved to the discharged officer or enlisted man (term also includes woman in active United States service). It is payable if and while the payee is disabled and in amount proportional to his disability. However, Article III, Section 302, specifies that "there shall be no reduction in the rate of compensation for individual success in overcoming the handicap of a permanent injury." That is, the average impairment of earning capacity is to be considered rather than the exceptional. Compensation awards may be reviewed on the 1st day of any month and, in accordance with the facts as then ascertained, may be terminated, diminished, or increased.

Reexaminations of disabled persons compensated by the bureau are required periodically, subject to regulations, and the findings of such examinations determine the continuance and amount of awards.

#### WHEN COMPENSATION FOR DISABILITY IS NOT PAYABLE.

No compensation, however, is payable to a person disabled unless he has been discharged or released from the service. Family allowances (limited to enlisted men, however, in Article II, regulating allotments and allowances in the Act) and treatments in military hospitals continue up until the date of discharge, which date is postponed until it is deemed that the maximum improvement has been obtained. Nor do benefits accrue to persons on the retired list in receipt of retirement pay; nor to those whose active service terminated before the date of the passage of the act, October 6, 1917; nor in case of a disability not occurring in line of duty (directly, or as a result); nor in case of a disability occurring as a consequence of misconduct; nor to persons dishonorably discharged.

#### COMPENSATION FOR DEATH.

Compensation is also payable to the dependents of a person disabled or killed in active service on or after October 6, 1917, provided death or disability was incurred while in active service or incident to service, and was not the result of misconduct. The permitted class of persons entitled to receive compensation includes widow until her remarriage, or dependent widower of any female member of the active service or Army or Navy Nurse Corps, children before attaining the age of 18 years, and dependent mother or father. A widow who shall have married the deceased later than 10 years after the time of injury, and a widow living in an openly and notoriously illicit manner is not entitled to receive compensation benefits under the law. The term widow includes a former wife divorced if and while she is in receipt of alimony decreed her by court; the term child includes illegitimate or adopted child for whom there is legal responsibility and stepchild living with the family. A widow, unless in the restricted classes above mentioned, or a child, is always considered as dependent and need only submit proof of relationship in the

form of marriage certificate, certain affidavits, etc. In case the child is not in the custody of the disabled man or his widow, or, in case a disabled man and his wife are not living together, compensation is payable, but the apportionment is left to special regulations. A mother or father, in order to receive compensation, must be dependent upon the deceased and must submit proper proof of dependency in the form of statements of habitual contributions on the part of the deceased, together with other statements as to income. Upon establishing proof of dependency an award of compensation may be made, but this will continue only as long as such dependency exists. If dependency arises more than five years after the death of the person, no compensation award is in order. A mother or father already receiving compensation in connection with the death of another child in the service is not entitled to further payments of compensation. Except where the beneficiaries are minors the filing of all claims is subject to a final limit of six years after the discharge, or, in case death or disability occurs after discharge and is incident to the service, to six years after the occurrence of the death or disability, but the awarding of any claim not entered within one year after discharge is made difficult and subject to special restrictions.

All compensation awards are exempt from attachment by any creditor except the United States Government.

#### FOUR CLASSES OF BENEFICIARIES.

The cash benefits of compensation may be divided into four heads: (1) Disability benefits, (2) self-and-family benefits, (3) nurse benefits, (4) family benefits.

(1) The disability benefits are the moneys payable monthly to the disabled man himself and are to the following amounts: Total disability for the time being, \$30;<sup>1</sup> partial disability of a temporary nature, a certain per cent of \$30, according to the degree of the disability; total disability of a permanent nature, \$30, "*Provided, however, That for the loss of both feet or both hands or both eyes, or for becoming totally blind or becoming helpless and permanently bedridden \* \* \* the rate of compensation shall be \$100 per month*"; partial disability of a permanent nature, a percentage of \$30, regulated according to the degree of the disability.

(2) The self-and-family benefits are payable to the disabled man and such members of his family as are entitled thereto and are as follows: Amount to a man totally disabled for the time being to include a wife, \$45; \$10 extra for each child up to three; to a totally disabled man and dependent mother or father, \$40; to a man totally disabled with dependent mother and father, \$50. Men suffering with partial disabilities of temporary or permanent classification are paid the percentage of the amounts designated for self and family status in each case equal to the percentage of their disability.

(3) Nurse benefits are benefits payable when a person is so disabled as to require a nurse. For a total disability, \$20 monthly is the maximum amount allowed under the act of October 6, 1917, for an attendant. An amendment to this act made provision for an award of \$100 monthly for a nurse in event of "loss of both hands and both eyes, or

<sup>1</sup> The scale of disability benefit has been revised upward by the amendment of Dec. 24, 1919, beginning with a change from the basic payment of \$30 to \$50 for total disability. See Appendix, p. 158.

in case of loss of both feet and both eyes, or in case of loss of both hands and both feet." The award for a nurse will be in addition to the \$100 payable for such disability.

(4) The family benefits include awards to widow, children, mother, or father of the deceased man. The widow is entitled to \$25 monthly; widow and one child, \$35; widow and two children, \$42.50, widow and three children, \$47.50; widow and four children, \$52.50, with no further allowance made for additional children. In event the wife is not living, \$20 monthly for the first child; for the second child, \$10 in addition; third, \$10; fourth, \$5; fifth, \$5; no allowance for additional children. A dependent father or mother is entitled to receive \$20; if both are dependent they are entitled to receive \$30. The maximum family benefit in case of death is \$75.

#### ADDITIONAL BENEFITS.

In addition to cash payments of compensation the Government also makes provision for reasonable and necessary medical, surgical, and hospital services and medical and surgical supplies and appliances, such as artificial limbs and trusses. Traveling expenses and loss of wages involved in submitting to the compulsory medical examinations by designated physicians are also covered in these provisions. Reasonable burial expenses of any person dying in the active service on or after October 6, 1917, are payable up to the amount of \$100. It is necessary, however, to submit all receipted itemized bills in connection with funeral expenses before an award may be approved to compensate for burial expenditures.



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## PART I.

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### MILITARY AND NAVAL INSURANCE.

Period Considered, April 6, 1917, to June 30, 1919.

Total death cases analyzed . . . . .	104,485
Total disability cases analyzed . . . . .	565
Total military and naval insurance claims awarded . . . . .	105,050
Total amount of insurance involved . . . . .	\$941,749,380



# MILITARY AND NAVAL INSURANCE.

## I. CLAIMS FOR WAR RISK INSURANCE BENEFITS.

The cases under observation in this study of insurance mortality and disability experience are those of persons dying or incurring permanent total disabilities for which claims have been filed during the period from April 6, 1917, to June 30, 1919. Though the claims for benefits were not received until sometime subsequent to the passage of the War Risk Insurance Act, October 6, 1917, the cases of automatic insurance might retroact to April 6, 1917. The following is a table showing the number of claims received by the bureau within this period and the number of awards made, number left pending, and number not payable.

### MILITARY AND NAVAL INSURANCE.

TABLE 1.—*Statement of number of military and naval insurance claims due to death and permanent total disability for the period Apr. 6, 1917, to June 30, 1919.*

Claims received.....	117, 885
Contract insurance claims awarded.....	100, 070
Automatic insurance claims awarded.....	4, 980
Total claims awarded.....	105, 050
No payments being made on contract insurance claims.....	391
No payments being made on automatic insurance claims.....	612
Total claims not being paid.....	1, 003
Total contract and automatic insurance claims disposed of.....	106, 053
Claims pending June 30, 1919.....	11, 832

The following diagram, in graphic illustration of Table 1 brings out the comparison of the number of claims filed with those awarded, with those pending, and with those upon which no award can be made.

### Military and Naval Insurance Claims.



DIAGRAM 1.—Status of the claims for contract and automatic insurance on June 30, 1919.

Claims subject to question as to whether or not an award should be made are held open and considered as pending until some action can be taken. A distinction is made between those upon which it has been decided that no award is justifiable and those which are pending further investigation. It is not unusual for claims to remain pending for some time, as it frequently happens that the beneficiaries live either in foreign countries or in places so remote as to necessitate a considerable lapse of time between the forwarding of forms or the initial correspondence and the arrival of the response at the bureau. It is the object of the bureau to keep these claims pending as long as there re-

mains any possibility of making an award and to take the initiative in locating possible beneficiaries. In disability cases there is less time consumed in locating the beneficiary since it is easier to correspond with the insured himself than with a beneficiary whose residence may have been changed from time to time without notification of such change having been forwarded to the bureau. Delay which may occur in disability cases is usually attributable to the time required to determine whether or not the disability is permanent and total.

The following illustrates graphically the gradual increase in the number of claims entering the bureau each month up to December, 1918.

Month of Receipt and Award of Claims.

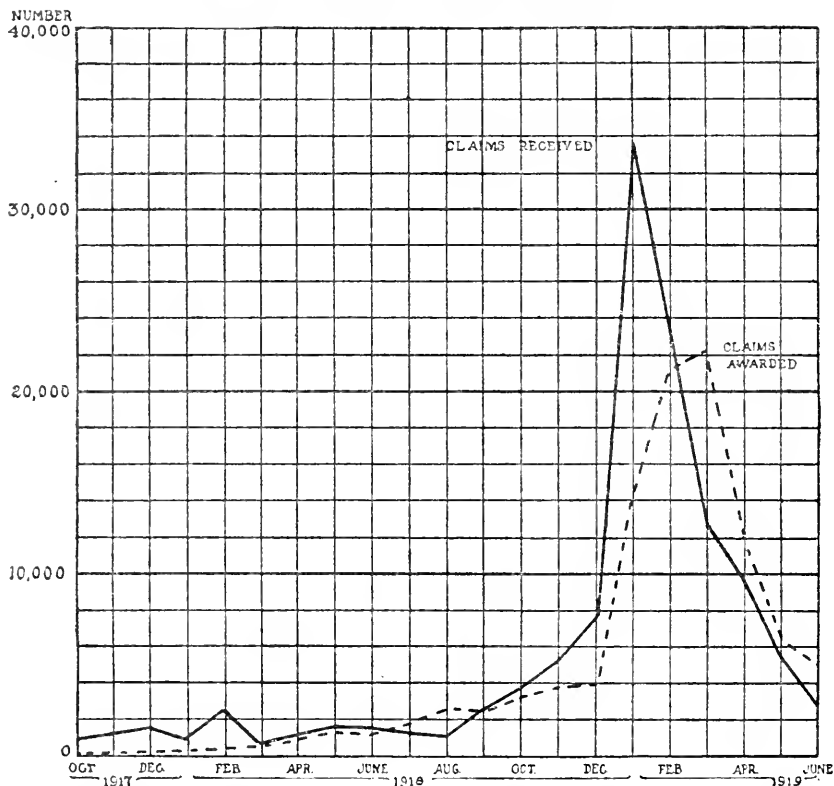


DIAGRAM 2. Contract and automatic insurance claims on account of death and disability received and awarded by the Bureau of War Risk Insurance by date of receipt and date of award, respectively.

It is to be noted that within the month of December there is a decided upward turn in the curve indicating the number of claims received and that by the following month the highest point had been reached. From February on there was a gradual decrease until in April the number is shown to be that which had been reached in December.

In comparison with the curve showing the monthly receipts of claims, is that showing the dates on which award was made. The horizontal separation between the two curves very roughly represents the time necessary for the adjudication of a claim. The vertical

separation represents the number of claims for which awards can not be made and the claims which are pending.

### Death and Disability.

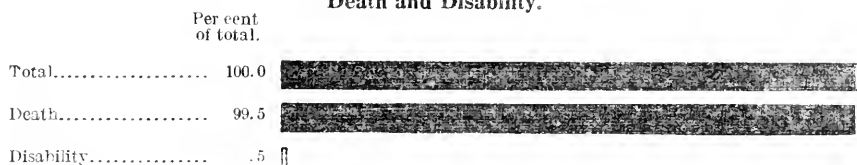


DIAGRAM 3.—A comparison of the number of death claims with the number of disability claims awarded for contract and automatic insurance.

There is a consistent separation of the death cases from the disability cases in the table presentations. Diagram 3 illustrates how small the disability group is in comparison with the death group. With but few exceptions diagrams do not attempt this separation, treating either the combined groups or the death group alone.

In a similar manner it is usual to make a separation of cases into those in which contract insurance awards have been made and those in which automatic insurance awards have been made. Diagrams 4 and 5 show the relative size of each group together with the death and disability separation.

### Contract and Automatic Insurance.

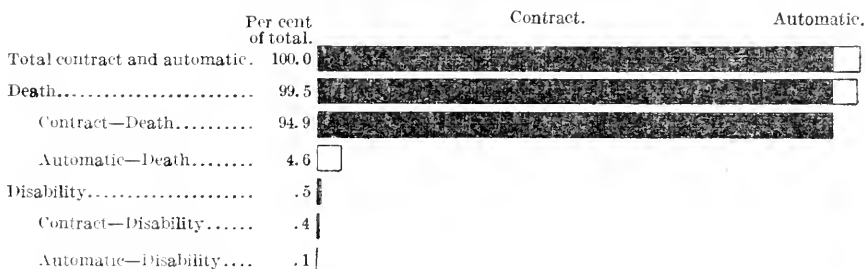


DIAGRAM 4.—The total number of awarded claims for death and disability cases, showing separation into contract and automatic insurance.

### Death and Disability.

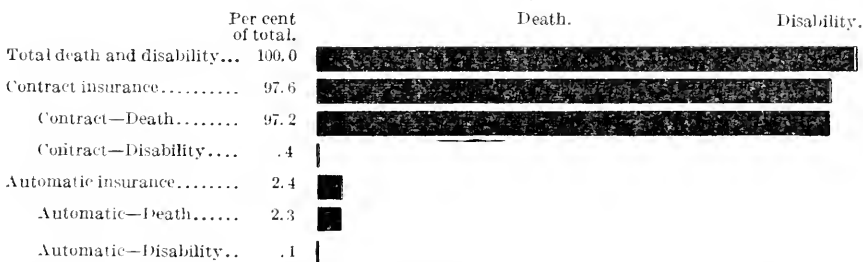


DIAGRAM 5.—The total number of insurance claims awarded for contract and automatic insurance showing separation into death and disability.

The contract and automatic insurance groups are often used in combination, as together they broaden the mortality experience. However, from the insurance standpoint the separation of cases is essential because of the fundamental differences between the two classes of insurance.

## II. AGE INCIDENCE.

## CONTRACT INSURANCE—DEATH AND DISABILITY CASES.

TABLE 2.—*Age of the insured at date of death or at date of disability.*

Age.	Death.			Disability.			Total.		
	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.
14.....	1	\$7.50	\$10,000.00				1	\$7.50	\$10,000.00
15.....	1	37.30	10,000.00				1	37.30	10,000.00
16.....	11	845.04	130,000.00				11	833.79	145,000.00
17.....	81	3,979.00	692,000.00	2	86.25	\$5,000.00	83	4,065.25	15,000.00
18.....	638	32,470.64	5,617,008.00	6	315.00	60,000.00	644	32,815.64	5,707,008.00
19.....	2,362	121,283.83	21,092,810.00	16	805.00	140,000.00	2,378	122,088.83	21,232,810.00
20.....	5,925	290,937.71	34,945,694.00	16	720.00	125,217.00	3,941	291,657.71	35,070,911.00
21.....	4,902	251,750.74	44,304,477.00	19	856.38	138,936.00	4,921	252,607.12	44,443,413.00
22.....	10,476	558,135.53	97,007,049.00	36	1,763.40	306,078.00	10,512	559,898.93	97,313,127.00
23.....	13,561	717,138.43	124,719,727.00	61	2,730.69	474,902.00	13,622	719,869.12	125,194,629.00
24.....	11,839	627,510.01	109,132,176.00	37	1,916.25	333,261.00	11,876	629,426.26	109,465,437.00
25.....	9,885	525,576.81	94,056,837.00	34	1,788.25	283,261.00	9,919	527,365.06	94,340,098.00
26.....	8,801	472,865.01	82,237,303.00	34	1,628.75	283,261.00	8,835	474,493.76	82,520,554.00
27.....	7,181	383,386.04	66,675,833.00	45	2,040.00	354,784.00	7,226	385,426.04	66,960,617.00
28.....	6,235	331,396.96	57,634,254.00	22	1,122.50	195,217.00	6,257	332,519.46	57,826,471.00
29.....	5,431	288,519.88	50,177,371.00	20	928.63	161,500.00	5,451	289,448.51	50,338,871.00
30.....	4,731	250,438.97	43,554,022.00	25	1,352.50	235,217.00	4,756	251,791.47	43,785,819.00
31.....	3,641	192,732.86	33,518,758.00	22	1,133.13	197,006.00	3,663	193,865.99	33,715,764.00
32.....	2,681	142,350.90	24,756,694.00				2,681	142,350.90	24,756,694.00
33.....	626	32,587.19	5,667,337.00	8	358.00	62,261.00	634	32,945.19	5,729,598.00
34.....	455	22,958.82	3,992,838.00	2	86.25	15,000.00	457	23,045.07	4,007,838.00
35.....	376	19,212.37	3,341,262.00	11	536.25	93,261.00	387	19,748.62	3,434,523.00
36.....	290	11,571.46	2,534,167.00	1	55.00	9,565.00	291	11,626.46	2,543,732.00
37.....	233	12,046.98	2,095,127.00	2	92.00	16,000.00	235	12,138.98	2,111,127.00
38.....	187	9,740.51	1,694,002.00	1	57.50	10,000.00	188	9,798.01	1,704,002.00
39.....	196	10,189.30	1,772,052.00	3	172.50	30,000.00	199	10,361.80	1,804,052.00
40.....	171	8,939.19	1,554,642.00	4	172.50	30,000.00	175	9,111.69	1,584,642.00
41.....	113	5,885.13	1,023,500.00	3	143.25	21,911.00	116	6,028.38	1,045,411.00
42.....	90	4,528.13	787,500.00				90	4,528.13	787,500.00
43.....	67	3,402.44	591,729.00	2	115.00	20,000.00	69	3,517.44	611,729.00
44.....	55	2,810.34	486,753.00	3	172.50	30,000.00	58	2,982.83	516,753.00
45.....	53	2,707.38	486,501.00				53	2,707.38	486,501.00
46.....	54	2,806.38	486,000.00	2	86.25	15,000.00	56	2,892.63	501,000.00
47.....	31	1,492.13	250,500.00				31	1,492.13	250,500.00
48.....	25	1,328.25	231,000.00				25	1,328.25	231,000.00
49.....	26	1,385.75	241,000.00	1	11.50	2,000.00	27	1,397.25	243,000.00

50.	17	856.75	149,000.00	1	57.50	10,000.00	18	914.25	159,000.00
51.	17	736.00	128,000.00				17	736.00	128,000.00
52.	17	816.30	142,000.00	1	57.50	10,000.00	18	874.00	152,000.00
53.	7	345.00	60,000.00				6	345.00	60,000.00
54.	6	293.25	51,000.00				6	293.25	51,000.00
55.	10	485.88	81,500.00				10	485.88	81,500.00
56.	5	212.75	37,000.00	1	57.50	10,000.00	5	212.75	37,000.00
57.	2	86.25	15,000.00	1	57.50	10,000.00	3	143.75	25,000.00
58.	6	345.00	60,000.00	1	57.50	10,000.00	7	402.50	70,000.00
59.	6	316.25	55,000.00				6	316.25	55,000.00
60.	8	403.50	70,174.00	1	57.50	10,000.00	9	461.00	80,174.00
61.			60,000.00	1	57.50	10,000.00	1	57.50	10,000.00
62.	6	345.00	60,000.00				6	345.00	60,000.00
63.	4	149.25	25,956.00				4	149.25	25,956.00
64.	2	86.25	15,000.00				2	86.25	15,000.00
Total.....		5,261,552.47	915,574,340.00	445	21,648.98	3,765,040.00	100,070	5,286,201.45	919,339,580.00

AUTOMATIC INSURANCE—DEATH AND DISABILITY CASES.  
TABLE 3. *Age of the insured at date of death or at date of disability.*

Age.	Death.			Disability.			Total.		
	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.
14.....	1	\$25	\$1,500				1	\$25	\$1,500
15.....	10	250	15,000				10	250	15,000
16.....	36	900	162,000				36	900	162,000
17.....	92	2,300	411,000				92	2,300	411,000
18.....	200	5,250	900,500				200	5,250	900,500
19.....	313	8,555	1,533,500	10	\$25	\$1,500	210	8,580	1,535,000
20.....	290	7,175	1,313,500	2	50	9,000	291	7,225	1,322,500
21.....	230	5,125	1,075,500	8	200	36,000	237	5,325	1,111,500
22.....	655	15,875	2,875,500	20	500	60,000	675	16,375	2,935,500
23.....	658	15,900	2,871,000	11	350	63,000	669	16,250	2,934,000
24.....	518	12,950	2,331,000	11	275	10,500	529	13,225	2,341,500
25.....	117	10,125	1,876,500	9	225	10,500	126	10,350	1,907,000
26.....	305	7,625	1,322,500	8	200	36,000	313	7,825	1,408,500
27.....	203	5,075	913,500	3	150	13,500	206	5,225	927,000
28.....	180	4,500	810,000	6	150	27,000	186	4,650	837,000
29.....	183	4,575	823,500	5	125	22,500	188	4,700	846,000
30.....	105	2,625	472,500	3	75	13,500	108	2,700	486,000
31.....	96	2,400	432,000	1	25	1,500	97	2,425	433,500
32.....	41	1,025	181,500				41	1,025	181,500
33.....	37	925	166,500				37	925	166,500
34.....	31	775	139,500	2	50	9,000	33	825	148,500
35.....	21	600	108,000	3	75	13,500	24	675	121,500
36.....	21	600	108,000	4	100	18,000	25	700	126,000
37.....	16	400	72,000	1	25	4,500	17	425	76,500
38.....	25	625	112,500				25	625	112,500
39.....	15	375	67,500	1	25	1,500	16	400	72,000
40.....	7	175	31,500	2	50	9,000	9	225	40,500
41.....	13	325	58,500				13	325	58,500
42.....	18	450	81,000	1	25	4,500	19	475	85,500
43.....	8	200	36,000	1	25	4,500	9	225	40,500
44.....	10	250	45,000				10	250	45,000
45.....	5	125	22,500	1	25	4,500	5	125	22,500
46.....	6	150	27,000				6	150	27,000
47.....	8	200	36,000				8	200	36,000
48.....	9	225	40,500				9	225	40,500
49.....	7	175	31,500				7	175	31,500
50.....	9	225	40,500				9	225	40,500
51.....	6	150	27,000				6	150	27,000



52.....	1	25	4,500	1	25	4,500	1	25	4,500
53.....	6	150	27,000	1	25	4,500	1	25	4,500
54.....	2	50	9,000				2	50	9,000
55.....	2	50	9,000				2	50	9,000
56.....	3	75	13,500				3	75	13,500
57.....	6	150	27,000				6	150	27,000
58.....	1	100	18,000				4	100	18,000
59.....									
60.....	2	50	9,000				2	50	9,000
61.....	1	100	18,000	1	25	4,500	5	125	22,500
62.....	1	25	4,500				1	25	4,500
63.....									
64.....	1	25	4,500				1	25	4,500
Total.....	4,860	121,500	21,870,000	120	3,000	540,000	4,980	124,500	22,410,000

CONTRACT AND AUTOMATIC INSURANCE—DEATH AND DISABILITY CASES.  
TABLE 4.—*Age of the insured at date of death or at date of disability.*

Age.	Death.			Disability.			Total.		
	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.
14.....	2	\$82.50	\$14,500.00				2	\$82.50	\$14,500.00
15.....	11	307.50	35,000.00				11	307.50	35,000.00
16.....	50	1,765.04	302,007.00	1	\$28.75	85,000.00	51	1,793.79	307,007.00
17.....	173	6,274.00	1,106,000.00	2	86.25	15,000.00	175	6,360.25	1,121,000.00
18.....	347	37,695.64	6,387,508.00	7	370.00	64,500.00	354	38,065.64	6,452,008.00
19.....	2,705	129,858.83	22,636,340.00	26	1,055.00	185,000.00	2,731	130,913.83	22,821,340.00
20.....	4,224	208,442.74	36,291,191.00	18	770.00	131,217.00	4,242	209,212.74	36,422,411.00
21.....	5,141	269,725.74	45,379,477.00	27	1,056.38	184,436.00	5,168	270,782.12	45,564,913.00
22.....	11,111	574,010.53	99,924,449.00	50	2,263.40	396,678.00	11,161	576,273.93	100,321,227.00
23.....	14,199	733,088.43	127,590,727.00	75	3,080.69	537,902.00	14,274	736,169.12	128,328,629.00
24.....	12,357	610,460.01	111,653,176.00	48	2,191.25	382,761.00	12,405	612,651.26	111,845,937.00
25.....	10,282	531,001.84	92,933,337.00	43	2,013.25	351,500.00	10,325	533,015.06	93,284,837.00
26.....	9,196	480,490.01	83,609,893.00	42	1,828.75	319,261.00	9,238	482,318.76	83,929,154.00
27.....	7,384	388,461.04	67,589,333.00	48	2,115.00	368,284.00	7,432	390,576.04	67,957,617.00
28.....	6,415	335,896.96	58,444,254.00	28	1,272.50	222,217.00	6,443	337,169.46	58,666,471.00
29.....	5,614	293,094.88	51,000,871.00	25	1,053.63	184,000.00	5,639	294,148.51	51,184,871.00
30.....	4,839	273,063.97	41,027,102.00	28	1,427.50	248,717.00	4,867	274,491.47	41,275,819.00
31.....	3,737	195,132.86	33,950,758.00	23	1,158.13	201,506.00	3,760	196,290.99	34,152,264.00
32.....	2,722	133,375.99	21,941,191.00				2,722	133,375.99	21,941,191.00
33.....	603	33,512.19	5,833,877.00	9	388.00	66,761.00	612	33,901.19	5,900,638.00
34.....	186	23,733.82	4,132,338.00	4	136.25	24,000.00	190	23,870.07	4,156,338.00
35.....	100	19,812.37	3,449,282.00	11	611.25	106,761.00	111	20,423.62	3,556,043.00
36.....	34	15,171.46	2,632,167.00	5	155.00	27,565.00	39	15,326.46	2,669,732.00
37.....	249	12,446.98	2,167,127.00	3	117.00	20,500.00	252	12,563.98	2,187,627.00
38.....	212	10,365.51	1,806,502.00	1	57.50	10,000.00	213	10,423.01	1,816,502.00
39.....	211	10,564.30	1,899,552.00	4	107.50	34,500.00	215	10,671.80	1,934,052.00
40.....	181	9,114.19	1,586,132.00	6	222.50	39,000.00	187	9,336.69	1,625,132.00
41.....	126	6,210.13	1,082,000.00	3	135.25	24,914.00	129	6,345.38	1,106,914.00
42.....	168	4,578.13	687,500.00	1	125.00	4,500.00	169	4,703.13	692,000.00
43.....	75	3,492.44	627,291.00	3	110.00	24,500.00	78	3,602.44	651,791.00
44.....	65	3,006.33	553,753.00	3	172.50	50,000.00	68	3,178.83	563,753.00
45.....	60	2,922.38	509,001.00				60	2,922.38	509,001.00
46.....	39	2,466.00	415,000.00	3	111.25	19,500.00	42	2,577.25	434,500.00
47.....	34	1,692.13	295,300.00				34	1,692.13	295,300.00
48.....	31	1,553.25	271,300.00				31	1,553.25	271,300.00
49.....	33	1,500.75	272,300.00	1	11.50	2,000.00	34	1,512.25	274,300.00
50.....	26	1,081.75	189,300.00	1	57.50	10,000.00	27	1,139.25	199,300.00
51.....	23	886.00	155,000.00				23	886.00	155,000.00

52	18	841.50	146,500.00	1	57.50	10,000.00	19	899.00	156,500.00
53	13	495.00	87,000.00	1	25.00	4,500.00	14	520.00	91,500.00
54	8	343.25	60,000.00				8	343.25	60,000.00
55	12	535.88	93,500.00				12	535.88	93,500.00
56	8	287.75	50,500.00				8	287.75	50,500.00
57	8	236.25	42,000.00	1	57.50	10,000.00	9	293.75	52,000.00
58	10	445.00	78,000.00	1	57.50	10,000.00	11	502.50	88,000.00
59	6	316.25	55,000.00				6	316.25	55,000.00
60	10	453.50	79,174.00	1	57.50	10,000.00	11	511.00	89,174.00
61	4	100.00	18,000.00	2	82.50	13,500.00	6	182.50	32,500.00
62	7	370.00	64,500.00				7	370.00	64,500.00
63	4	149.25	25,956.00				4	149.25	25,956.00
64	3	111.25	19,500.00				3	111.25	19,500.00
Total.....		5,386,052.47	937,441,340.00	565	24,648.98	4,305,040.00	105,050	5,410,701.45	941,749,380.00

A study of the age incidence of war mortality and disability is most instructive. Tables 2 and 3 show the age composition of the insured at the date of death, or, in case of permanent and total disability, the date of disability. The first table presents the number of cases in which contract insurance has been awarded, the monthly payments, and the amount of insurance involved in each age group. The second table gives the number of cases in which automatic insurance has been awarded and the monthly payment in each age. The amount of insurance involved where protection has been automatically given is taken as \$4,500 for each case. Table 4 combines

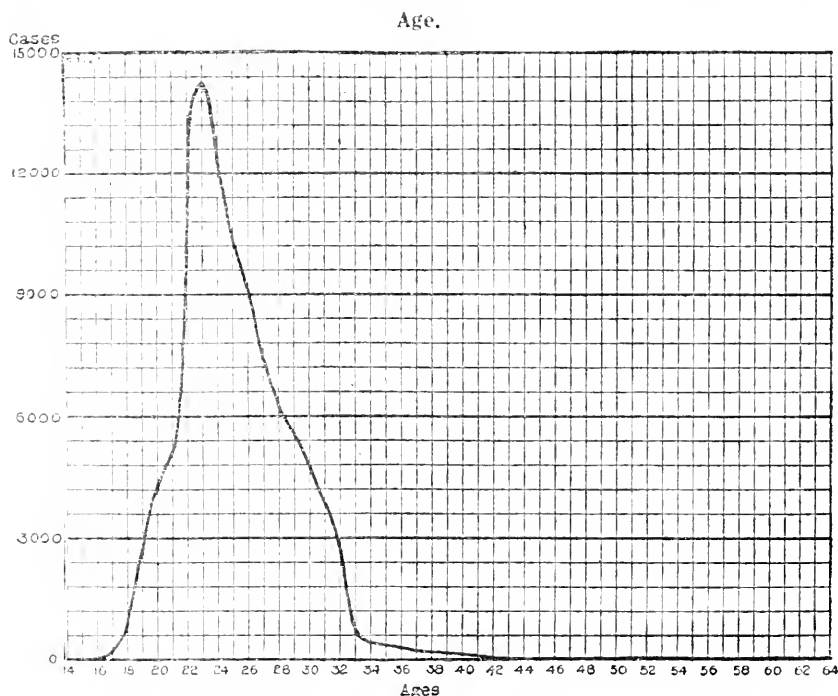


DIAGRAM 6. —Age of insured at death or at disability; the total number of contract and automatic insurance claims awarded.

the previous two tables, eliminating the contract and automatic insurance separation. It is this table that is used as the basis for the age study.

The age characteristics of the insured constitute those of a very special group which was largely fixed at the outset and consequently the study will not be comparable with any age distribution of the general population. The arbitrary choice of men between the ages 21 and 31 by the selective draft largely determined the frequency distribution.

It will be observed that the class of persons receiving insurance showing maximum mortality incidence is comprised of those dying between ages 19 and 32 inclusive, which, in view of the fact that the age is at the nearest birthday, means those persons in the 14 years of life included between the ages  $18\frac{1}{2}$  and  $32\frac{1}{2}$ . Only about 5,000 of the insured were outside these age limits. This age distribution is shown graphically in diagram 6. The sharp drop comes after the cen-

## Age.

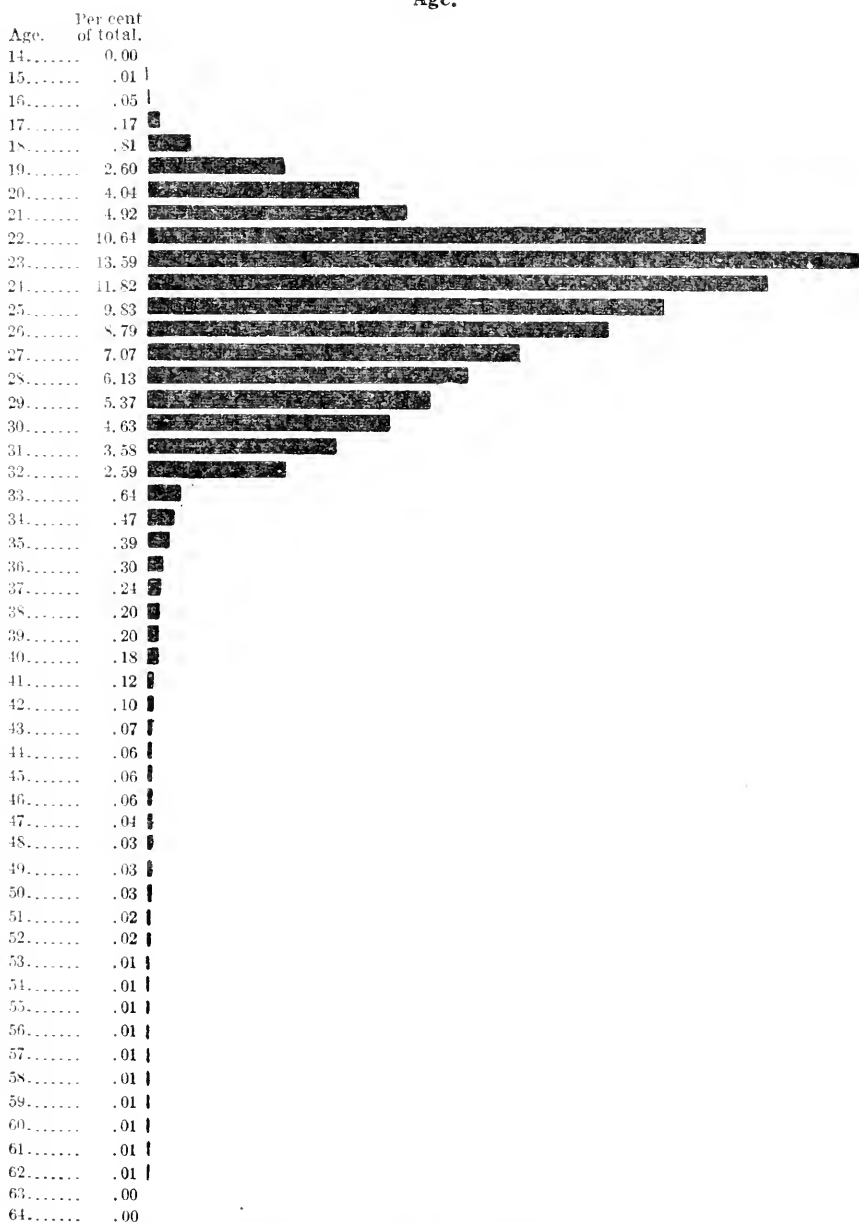


DIAGRAM 7.—Ages of the insured at time of death or disability; the total number of contract and automatic insurance claims awarded is considered.

tral age 32, as the fighting forces were largely composed of drafted men. The question arises as to why the sharp downward turn comes at this age group rather than at that of age 30½. The explanation lies in the fact that nearly a year and a half elapsed between the date of the first registration, June 5, 1917, and the time of the greatest mortality in October, 1918. The 10 years of life represented in the draft therefore affected the age distribution of the deceased until the central age 32. The insured over 32½ years of age were almost exclusively officers and members of the Regular Army or the National Guard with a sprinkling of men of the second and third drafts. The arithmetic mean or average age of the 104,185 insured who died was 25 years and 4 months. The median age was 24 years and 8 months. The frequency distribution shows the age 23 as the point of maximum incidence of mortality. A curve based on smaller groups than that of diagram 6 would indicate the modal age more clearly. The relationship here between the mean age, the median age and the modal age is the one which is usual in cases of asymmetrical distributions, where groups increase rapidly on the left of the maximum point and decline more slowly on the right side. The 565 insured who received disability awards were about a year older on the average than the age of the death group.

Diagram 7 shows on a comparative scale the age distribution as well as the percentages. This grouping of ages more clearly indicates those groups comprising the largest number of deaths and disabilities and of those groups emphasizes the group in the twenty-third year.

### III. RELATIONSHIP OF THE BENEFICIARIES TO THE INSURED.

The composition of the different groups of beneficiaries receiving insurance is analyzed in Table 5 which shows the number in each group of single beneficiaries and in each group of combinations of beneficiaries together with the monthly payment and the amount of insurance involved.

The groups of beneficiaries receiving contract insurance are presented in a comparative manner by means of diagram 8. Restriction of the class of beneficiaries probably had little effect upon the choice by the insured.

The automatically insured person had no choice of beneficiary, the class and order being prescribed by law. Hence the study in diagram 9 indicates the surviving widows, mothers, fathers, and children.

A combination of diagrams 8 and 9 gives the diagram 10 which illustrates comparatively the beneficiaries for the entire mortality experience. It indicates that the group of mothers who are single beneficiaries is almost as large as the sum of all other groups. The group of fathers is second in size. That the group of wives occupies third place is indicative of the fact that the greater per cent of the insured were unmarried.

The group of mothers who are single beneficiaries as compared with the groups in which the mothers appear in combination with other beneficiaries is presented by means of diagram 11. It brings all the mother-beneficiary groups from diagram 10 together for comparison with each other. The sum of all these groups shows that the number of cases in which the mother is a beneficiary is more than all the other cases together, as illustrated in diagram 12. The group of father-beneficiaries in comparison with all others is shown in diagram 13.

TABLE 5.—*Relationship of the beneficiary to the insured.*

Relation of beneficiary.	Contract—Death.			Automatic—Death.			Total—Death.		
	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.
Wife.....	9, 942	\$525, 205.42	\$91, 340, 073.00	669	\$16, 725.00	\$3, 010, 500.00	10, 611	\$541, 930.42	\$94, 350, 573.00
Wife and 1 child.....	178	9, 634.63	1, 675, 588.00				178	9, 634.63	1, 675, 588.00
Wife and more than 1 child.....	96	5, 243.50	911, 913.00				96	5, 243.50	911, 913.00
Wife and mother.....	1, 024	56, 189.63	9, 772, 094.00				1, 024	56, 189.63	9, 772, 094.00
Wife and sister.....	74	3, 902.88	678, 762.00				74	3, 902.88	678, 762.00
Wife and brother.....	20	1, 070.81	186, 228.00				20	1, 070.81	186, 228.00
Wife and others than above.....	318	17, 297.98	3, 008, 344.00				318	17, 297.98	3, 008, 344.00
Child, 1 only.....	309	15, 711.88	2, 732, 500.00				350	16, 736.88	2, 917, 000.00
Children, more than 1.....	111	5, 806.54	1, 009, 833.00	17	425.00	76, 500.00	128	6, 231.34	1, 086, 333.00
Mother.....	46, 375	2, 447, 069.41	425, 577, 287.00	3, 521	88, 025.00	15, 844, 500.00	49, 896	2, 535, 094.41	441, 421, 787.00
Mother and child.....	54	2, 932.50	510, 000.00				54	2, 932.50	510, 000.00
Mother and more than 1 child.....	13	690.00	120, 000.00				13	690.00	120, 000.00
Mother and father.....	5, 950	327, 969.84	57, 038, 233.00				5, 950	327, 969.84	57, 038, 233.00
Mother and sister.....	926	49, 972.38	8, 690, 849.00				926	49, 972.38	8, 690, 849.00
Mother and brother.....	369	20, 309.89	3, 532, 155.00				369	20, 309.89	3, 532, 155.00
Mother, sister, and brother.....	96	5, 058.63	879, 762.00				96	5, 058.63	879, 762.00
Mother and others than above.....	944	51, 297.38	8, 921, 283.00				944	51, 297.38	8, 921, 283.00
Father.....	17, 640	935, 439.65	162, 685, 157.00				18, 252	950, 739.65	165, 439, 157.00
Father and others than above.....	1, 091	58, 905.07	10, 244, 360.00	612	15, 300.00	2, 754, 000.00	1, 091	58, 905.07	10, 244, 360.00
Grandmother.....	364	18, 382.75	3, 197, 000.00				364	18, 382.75	3, 197, 000.00
Sister.....	115	5, 824.76	1, 013, 002.00				115	5, 824.76	1, 013, 002.00
Brother.....	7, 244	369, 228.24	64, 213, 607.00				7, 244	369, 228.24	64, 213, 607.00
Other combinations of relatives.....	3, 930	201, 387.19	35, 023, 839.00				3, 930	201, 387.19	35, 023, 839.00
	2, 442	130, 022.11	22, 612, 541.00				2, 442	130, 022.11	22, 612, 541.00
Total death.....	99, 625	5, 264, 552.47	915, 574, 340.00	4, 860	121, 500.00	21, 870, 000.00	104, 485	5, 386, 052.47	937, 444, 340.00
Permanent and total disability (beneficiary, self).....	445	21, 648.98	3, 765, 040.00	120	3, 000.00	540, 000.00	565	21, 648.98	4, 305, 040.00
Total death and disability.....	100, 070	5, 286, 201.45	919, 339, 380.00	4, 980	124, 500.00	22, 410, 000.00	105, 050	5, 410, 701.45	941, 749, 380.00

## Contract Insurance Beneficiaries.

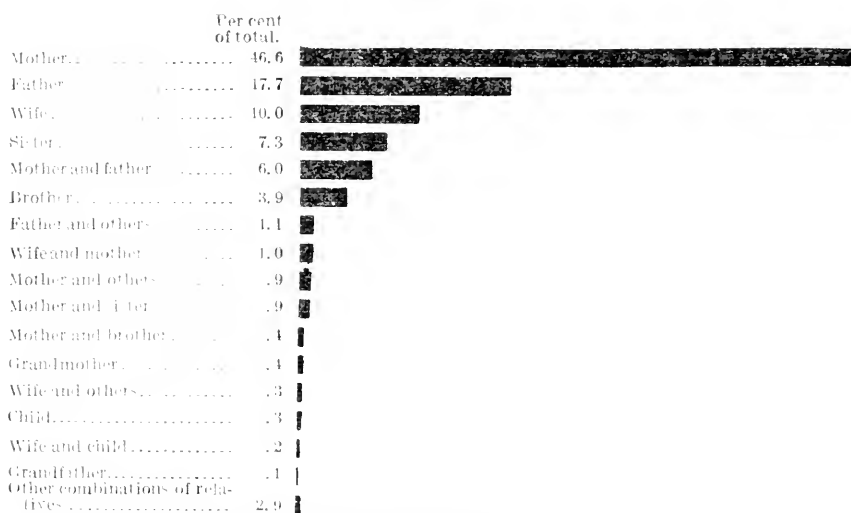


DIAGRAM 8.—Number of awarded claims in death cases under contract insurance showing relationship of beneficiary to the insured.

## Automatic Insurance Beneficiaries.

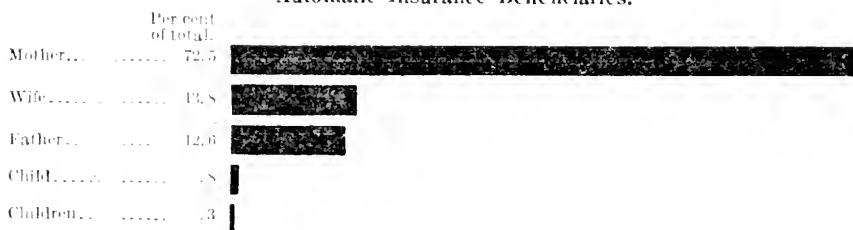


DIAGRAM 9.—Number of awarded claims in death cases under automatic insurance showing relationship of beneficiary to the insured.



## Contract and Automatic Insurance Beneficiaries.

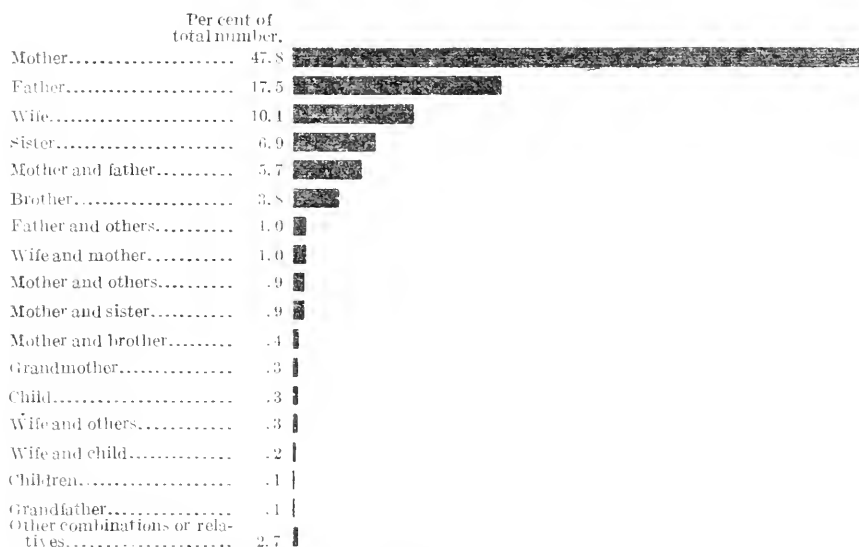


DIAGRAM 10.—Number of awarded claims in death cases under contract and automatic insurance showing relationship of beneficiary to the insured.

## Mothers.

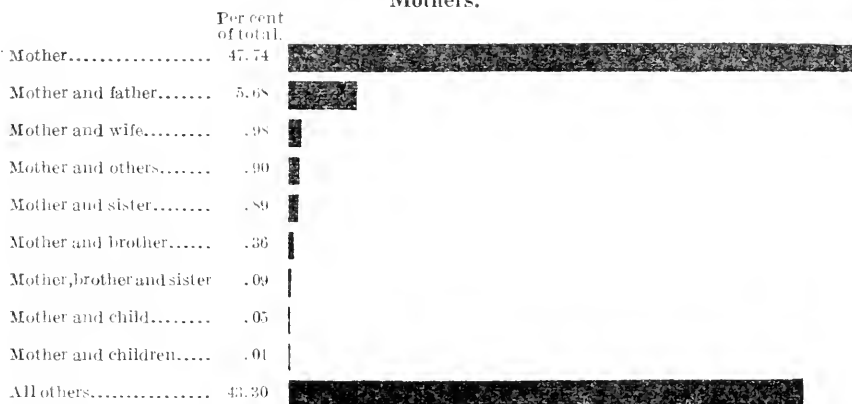


DIAGRAM 11.—A comparison of the number of cases in which the mother of the insured is the beneficiary and is a joint beneficiary in awarded death claims for contract and automatic insurance.

The father and mother group is duplicated in these two representations. The group of wife-beneficiaries in comparison with all others is illustrated in diagram 15. This group overlaps the group given in diagram 12, in that both groups include the group of wives and mothers as joint beneficiaries. By means of diagram 14 these three groups of beneficiaries are brought together with the combination of the three in comparison with the remaining beneficiary groups combined.

#### Beneficiaries.



DIAGRAM 12.—Cases in which the mother of the insured is the beneficiary or is a joint beneficiary compared with all other cases in awarded death claims for contract and automatic insurance.



DIAGRAM 13.—Cases in which the father of the insured is the beneficiary or is a joint beneficiary compared with all other cases in awarded death claims for contract and automatic insurance.

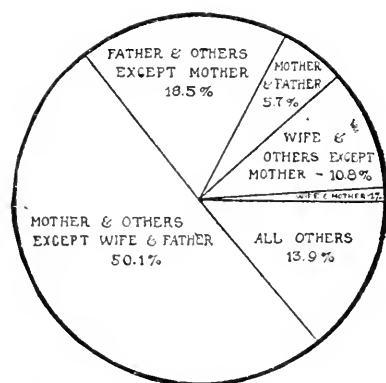


DIAGRAM 14.—A comparison of the number of cases in which the mother, the wife, and the father of the insured are beneficiaries in awarded death claims for contract and automatic insurance.

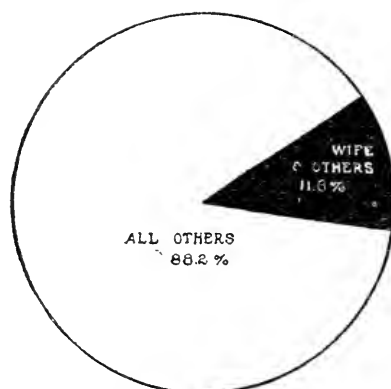


DIAGRAM 15.—Cases in which the wife of the insured is the beneficiary or is a joint beneficiary compared with all other cases in awarded death claims for contract and automatic insurance.

#### IV. POLICY AMOUNTS.

The table showing the amounts of the policies chosen by the men upon entering the service to insure themselves against death or disability affords a very interesting study. Table 6 presents the various policy amounts applied for upon which monthly payments are being made, together with automatic insurance granted.

## CONTRACT INSURANCE—DEATH AND DISABILITY CASES.

TABLE 6.—*Monthly payments and amount of insurance by policy amounts.*

Amount of policy.	Death.			Disability.			Total.	
	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.
\$1,000.....	259	\$1,489.25	\$259,000.00	1	\$5.75	\$1,000.00	260	\$1,495.00
\$1,500.....	9	77.63	13,500.00				9	77.63
\$2,000.....	574	6,601.00	1,148,000.00	4	46.00	8,000.00	578	6,647.00
\$2,500.....	92	1,322.50	230,000.00	1	14.38	2,500.00	93	1,336.88
\$3,000.....	372	6,417.00	1,116,000.00	5	86.25	15,000.00	377	6,503.25
\$3,500.....	13	261.62	45,500.00				13	261.62
\$4,000.....	199	4,577.00	796,000.00				199	4,577.00
\$4,500.....	45	1,164.38	202,500.00				45	1,164.38
\$5,000.....	13,170	378,052.50	65,750,000.00	84	2,415.00	420,000.00	13,254	380,467.50
\$5,500.....	8	253.00	44,000.00				8	253.00
\$6,000.....	262	9,639.00	1,572,000.00	1	34.50	6,000.00	263	9,673.50
\$6,500.....	11	411.12	71,500.00				11	411.12
\$7,000.....	196	7,889.00	1,372,000.00	2	80.50	14,000.00	198	7,969.50
\$7,500.....	114	4,916.25	855,000.00	2	86.25	15,000.00	116	5,002.50
\$8,000.....	274	12,604.00	2,192,000.00	2	92.00	16,000.00	276	12,696.00
\$8,500.....	5	244.38	42,500.00				5	244.38
\$9,000.....	58	3,001.50	722,000.00				58	3,001.50
\$9,500.....	2	109.25	19,000.00				2	109.25
\$10,000.....	83,546	4,821,145.00	838,460,000.00	309	17,767.50	3,000,000.00	84,155	4,838,912.50
Odd policy amounts.....	136	4,967.09	863,840.00	34	1,020.85	177,540.00	170	5,987.94
Total contract insurance.....	99,025	5,264,552.47	915,574,340.00	445	21,648.98	3,765,040.00	100,070	5,286,201.45
Automatic insurance, \$4,500.....	4,800	121,500.00	21,870,000.00	120	3,000.00	540,000.00	4,980	124,500.00
Total contract and automatic insurance.....	104,485	5,386,052.47	937,444,340.00	565	24,648.98	4,305,040.00	105,050	5,410,701.45
								941,749,380.00

The amount of insurance is given for each policy. The most noticeable feature in the study of this table and of diagram 16 which follows is the striking predominance of \$10,000 policies. In fact, the \$10,000 and the \$5,000 policies constitute about 93 per cent of the total number. That the insured chose maximal policies was largely due to the personal dangers into which they believed service would lead them. In addition premiums were low and were deducted from pay rather than paid in cash.

The group of odd policy amounts as shown in this diagram is made up of policies in force not in the amount of multiples of \$500. In event of insufficient premium payments on the part of the insured, the amount of the policy awarded has to be reduced from the amount

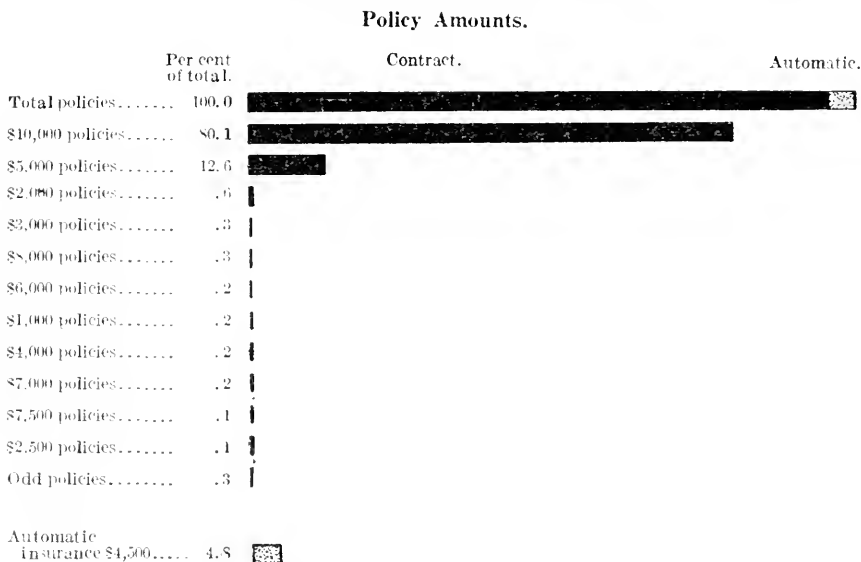


DIAGRAM 16.—Amounts of insurance, contract and automatic, on which claims have been awarded for death and disability.

of the policy applied for. These incorrect payments of premiums are largely due to the misstatement of ages by the applicants. In most instances the misrepresentations were entirely the result of carelessness or an actual want of exact information on the part of the applicant. There seems to have been inadequate knowledge of the exact birth years on the part of the insured and the true ages in many instances have not been ascertained until birth certificates have been sent to the bureau. In cases of excess of premiums paid the overpayment is refunded.

The average policy upon which claim for contract insurance has been awarded on account of death is \$9,190 involving the average monthly payment of \$52.84. The average policy upon which a disability claim has been awarded is \$8,461 with an average monthly payment of \$48.65.

## V. DURATION OF POLICIES.

The duration of a policy or the length of time the insurance has been in force is the length of time from the date the policy became effective to the time the death or the permanent total disability occurred. The following table gives the durations of the policies by months and the monthly payments with the amount of insurance involved in each group.

Those policies for which the duration is indicated as less than one month include all those in which the death or disability occurred in the same calendar month as that in which the insurance was granted. When the duration is recorded as one month it is to be understood that the insured died or was disabled in the month

Duration of Policy.

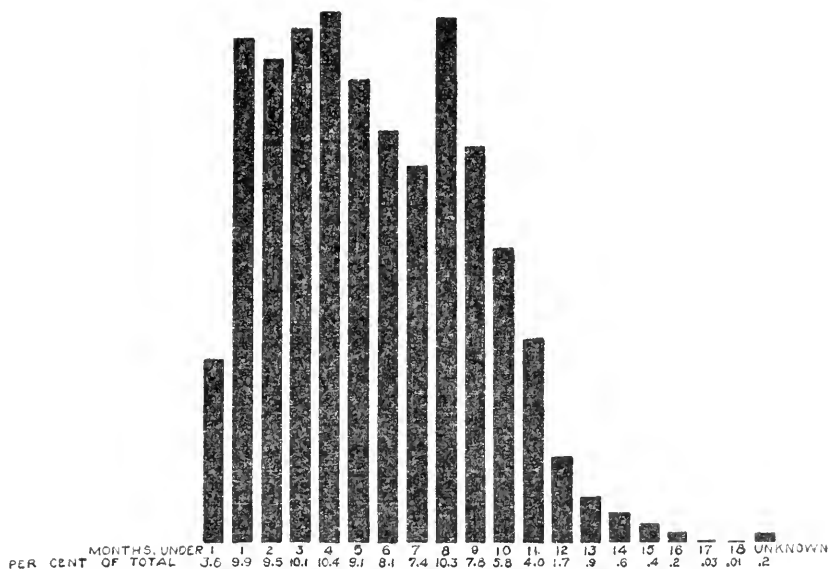


DIAGRAM 17.—The length of time contract insurance was in force in cases for which death and disability claims have been awarded.

following that in which his policy became effective. The other durations are to be interpreted in a similar manner. The reduction of these comparative groups to graphic form brings out a number of facts. An average of five and one-half months elapsed between the taking out of insurance and death, and four months and 21 days between the taking out of insurance and permanent total disability.

The maximum grouping is toward the policies of shorter duration, from 1 month to 10. This may be explained by the fact that contract insurance had been in effect for so brief a period before the maximum mortality incidence. The group representing eight months duration is significant. The time limit in which contract insurance might be applied for by men in the service prior to October 15, 1917, expired February 12, 1918. The time limit, however, was extended later to April 12, 1918. The maximum mortality incidence was in October, 1918.



Upon some policies it has been impossible to determine the duration. In some instances there is no date on which insurance was granted, and in some the date of death was unknown. The former condition arises when applications were cabled, when applications were made on board transports, and when applications were made in trenches before regular forms were available. Some of these applications where the date is lacking were made by men immediately before "going over the top." They consist of the simple statement "the undersigned desires war risk insurance," followed by the policy amount, the beneficiary, the signature and the witness' signature. There is one instance of a soldier writing on the wall of a dugout his insurance application. A photograph of this application was taken and sent to the bureau.

#### VI. DATE OF DEATH OR OF DISABILITY OF THE INSURED.

There were 1,339 deaths and 28 disabilities occurring before February, 1918, which were covered by contract insurance. There were 1,363 deaths and 25 disabilities covered by automatic insurance which occurred before October, 1917. These results are obtained from tables 8 and 9. Seventy-two per cent of the deaths and 76 per cent of the disabilities which occurred in the period from October 6, 1917, to February 12, 1918, were not covered by contract insurance and automatic insurance awards have been made. There is no question but that more cases would have been covered by contract insurance had not the automatic privilege been provided, but the advantage of this overlapping period need not be pointed out, as the foresight of those who framed the law equalizing the opportunity for protection among all who served can not fail to be appreciated.

The above discussion makes it clear why the death and disability dates are presented according to whether contract insurance awards or automatic insurance awards have been made. Diagram 18 shows that nearly 43 per cent of the deaths and disabilities covered by contract insurance occurred in October, 1918, while diagram 19 shows that nearly 45 per cent of the deaths and disabilities covered by automatic insurance occurred in the months of December and January. The causes of these deaths and disabilities will be treated elsewhere.

The preceding table brings all deaths together and all disabilities together occurring in each month. This affords the basis for diagram 20 which shows the mortality experience under observation by months. The increase in the death rate during the first winter of encampment of unseasoned soldiers is illustrated together with the enormous increase for the month of October. Diagram 21 illustrates in the same manner the distribution of the disabilities by months. Though the group is small it is of interest to know that the months of February and March, 1918, were those in which the greatest number of disabilities were incurred, and that the October group is third in size.

It has also been considered desirable to bring the percentages of deaths and the percentages of disabilities together for each month for comparison as has been done in diagram 22.

## Date of Death or Disability—Contract Insurance.

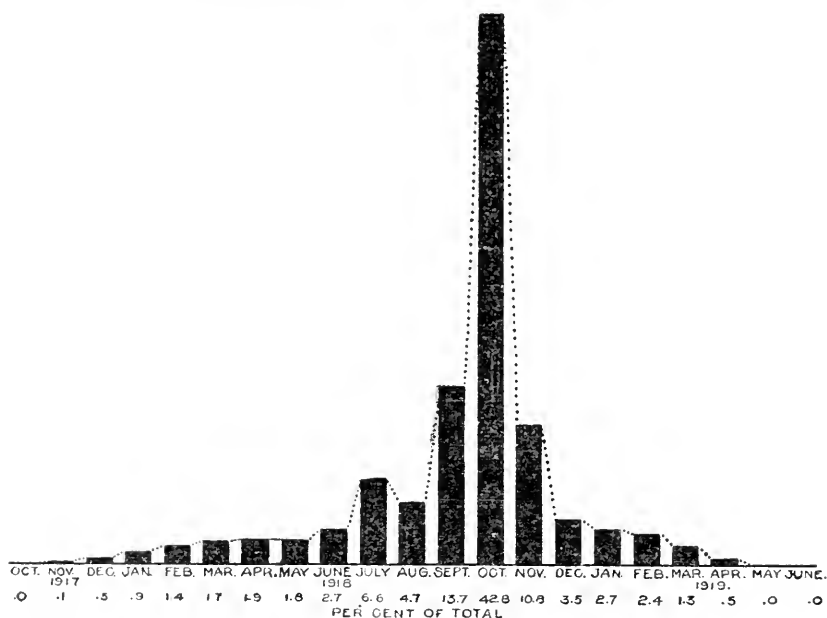


DIAGRAM 18.—Awarded claims of contract insurance distributed according to the months in which the death or disability occurred. Payments are made as of the day following the date of death or disability.

## Date of Death or Disability—Automatic Insurance.

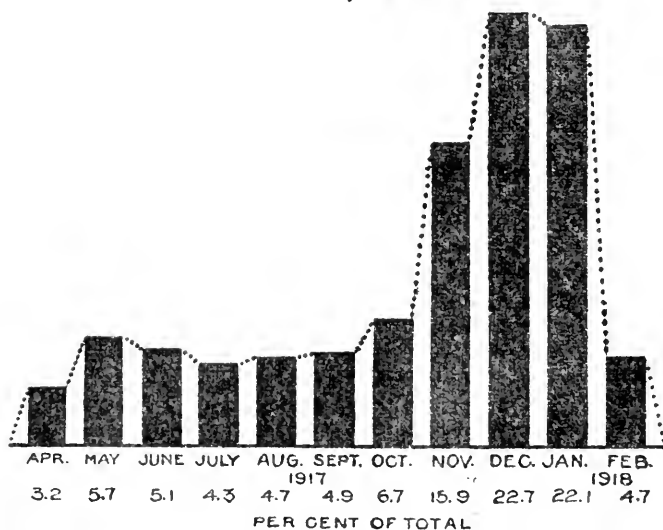


DIAGRAM 19.—Awarded claims of automatic insurance distributed according to the months in which the death or disability occurred. Payments are made as of the day following the date of death or disability.



## Date of Death.

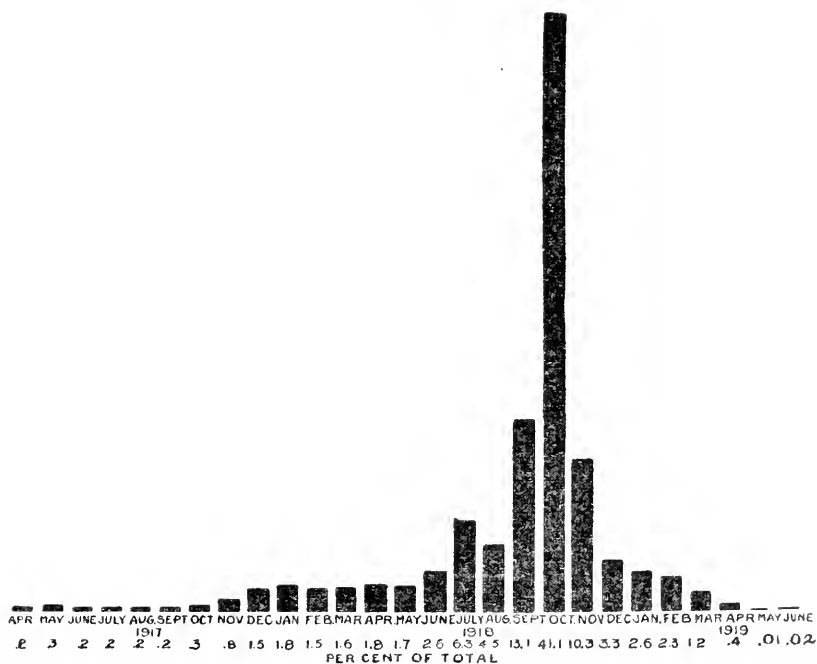


DIAGRAM 20.—The per cent of the total number of deaths occurring in each month for which contract and automatic insurance claims have been awarded.

## Date of Disability.

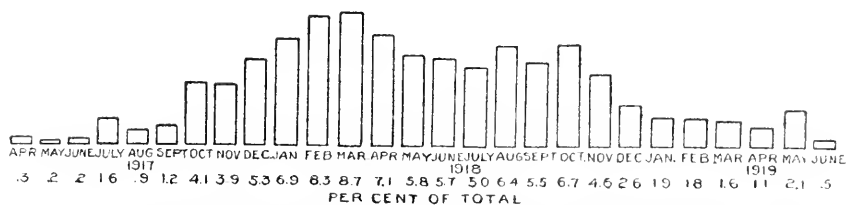


DIAGRAM 21.—The per cent of the total number of permanent total disabilities occurring in each month for which contract and automatic insurance claims have been awarded.



TABLE 9.—*Date of death or disability.*

Date.	Death.			Disability.			Total.	
	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.	Number.	Amount of insurance.
1917.								
April.....	155	\$3,875.00	\$997,500.00	2	\$500.00	\$0.000.00	157	\$3,925.00
May.....	285	7,125.00	1,282,500.00	1	25.00	4,500.00	286	7,150.00
June.....	252	6,300.00	1,131,000.00	1	25.00	4,500.00	253	6,325.00
July.....	203	5,300.00	918,000.00	9	225.00	19,500.00	213	5,325.00
August.....	229	5,725.00	1,050,500.00	5	125.00	22,500.00	234	5,850.00
September.....	238	5,950.00	1,071,000.00	7	175.00	31,500.00	245	6,125.00
October.....	311	7,775.00	1,399,500.00	23	575.00	103,500.00	334	8,350.00
November.....	776	19,400.00	3,192,000.00	17	425.00	70,500.00	793	19,825.00
December.....	1,102	27,550.00	4,959,000.00	26	650.00	117,000.00	1,128	28,200.00
January.....	1,082	27,050.00	4,809,000.00	20	500.00	90,000.00	1,102	27,550.00
February.....	226	5,650.00	1,017,000.00	9	225.00	49,500.00	235	5,875.00
Total.....	4,890	121,503.00	21,870,000.00	120	3,000.00	510,000.00	4,980	124,503.00
1918.								
January.....	1,082	27,050.00	4,809,000.00	20	500.00	90,000.00	1,102	27,550.00
February.....	226	5,650.00	1,017,000.00	9	225.00	49,500.00	235	5,875.00
Total.....	4,890	121,503.00	21,870,000.00	120	3,000.00	510,000.00	4,980	124,503.00

CONTRACT AND AUTOMATIC INSURANCE—DEATH AND DISABILITY CASES.  
TABLE 10. *Date of death or disability.*

Date.	Death.			Disability.			Total.		
	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.
1917.									
April.....	155	\$3,875.00	\$697,500.00	2	\$50.00	\$0,000.00	157	\$3,925.00	\$706,500.00
May.....	255	7,125.00	1,282,500.00	1	25.00	4,500.00	256	7,150.00	1,287,000.00
June.....	252	6,300.00	1,134,000.00	253	6,325.00	4,500.00	505	12,625.00	1,138,500.00
July.....	204	5,100.00	918,000.00	9	225.00	20,500.00	213	5,325.00	938,500.00
August.....	209	5,725.00	1,030,500.00	214	125.00	22,500.00	423	5,850.00	1,053,000.00
September.....	228	5,950.00	1,071,000.00	7	175.00	31,500.00	235	6,125.00	1,102,500.00
October.....	314	7,915.00	1,423,800.00	23	575.00	107,500.00	337	8,490.00	1,531,300.00
November.....	831	22,217.50	3,982,000.00	22	680.00	120,800.00	853	22,897.50	4,102,800.00
December.....	1,546	49,687.76	8,809,045.00	30	815.00	145,606.00	1,576	50,502.76	8,954,646.00
1918.									
January.....	1,919	68,422.55	12,054,226.00	30	1,334.88	295,107.00	1,949	69,757.43	12,349,333.00
February.....	1,581	72,301.88	12,608,631.00	47	2,197.25	383,500.00	1,628	74,499.13	12,992,131.00
March.....	1,683	82,192.45	14,294,331.00	49	2,484.00	432,000.00	1,732	84,676.45	14,726,331.00
April.....	1,910	95,781.74	16,667,694.00	40	1,948.75	338,913.00	1,950	97,730.49	16,996,607.00
May.....	1,704	89,207.43	15,514,336.00	33	1,406.88	244,501.00	1,737	90,614.31	15,758,837.00
June.....	1,685	135,552.22	23,571,341.00	32	1,433.25	251,001.00	1,717	136,985.47	23,822,341.00
July.....	6,548	341,011.11	59,306,280.00	28	1,323.75	230,217.00	6,576	342,334.86	59,536,497.00
August.....	4,678	246,262.97	42,826,604.00	36	1,840.00	320,000.00	4,714	248,092.97	43,146,604.00
September.....	13,650	724,347.33	125,973,553.00	31	1,722.13	299,501.00	13,681	726,069.46	126,273,054.00
October.....	42,833	2,201,591.57	398,537,663.00	38	2,000.00	358,277.00	42,871	2,203,591.57	398,895,940.00
November.....	10,741	577,575.91	100,447,985.00	26	1,279.75	225,565.00	10,767	578,855.71	100,673,540.00
December.....	3,489	184,750.85	32,130,583.00	15	748.75	130,217.00	3,504	185,499.60	32,260,800.00
1919.									
January.....	2,735	142,424.75	24,709,520.00	11	552.00	96,000.00	2,746	142,976.75	24,805,520.00
February.....	2,420	127,828.82	22,231,099.00	10	463.75	80,652.00	2,430	128,292.57	22,311,751.00
March.....	1,298	67,490.64	11,737,503.00	9	406.25	40,652.00	1,307	67,896.89	11,808,155.00
April.....	462	23,733.64	4,127,500.00	6	178.75	31,087.00	468	23,912.39	4,158,617.00
May.....	33	1,621.50	282,000.00	12	432.50	75,217.00	45	2,054.00	284,217.00
June.....	2	86.25	15,000.00	3	115.00	20,000.00	5	201.25	35,000.00
Total.....	104,485	5,386,652.47	937,414,340.00	565	24,648.98	4,305,040.00	105,050	5,410,701.45	941,719,380.00

After the occurrence of a death or disability a certain length of time elapses before a claim for benefits is entered in the bureau. Likewise, after the submission of the claim, a further period of time is required for the obtaining of all the information necessary in the making of an award. Therefore, the payments of insurance are not dispatched for some time after the entrance of the claim. When all pertinent information has been received the award is approved and

### Dates of Death and Disability.

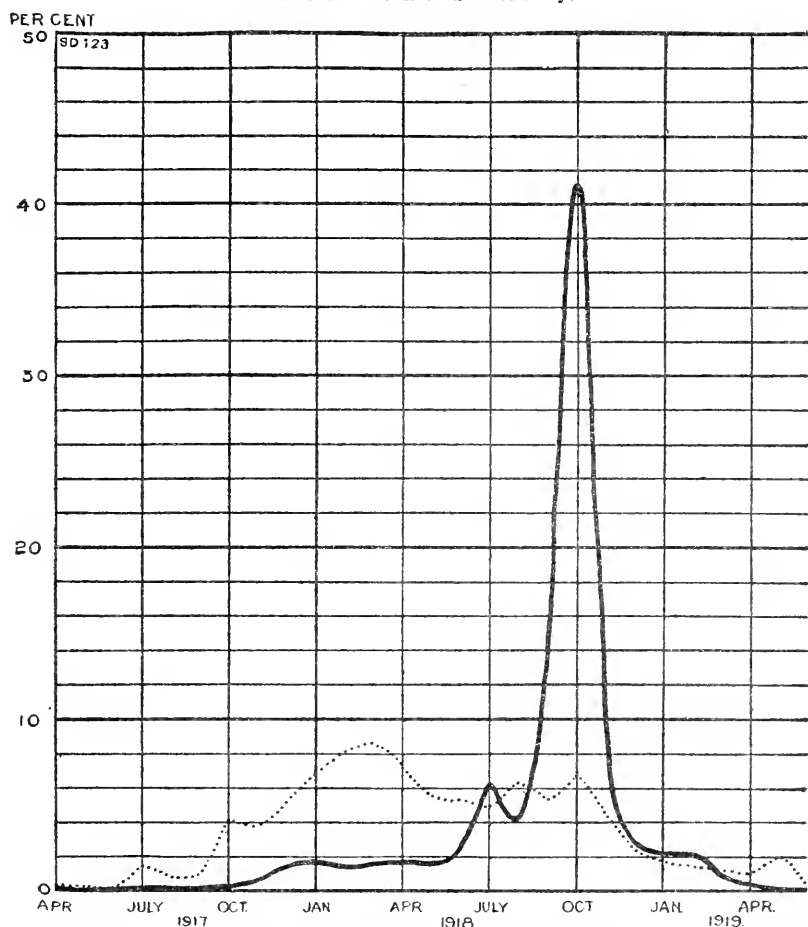


DIAGRAM 22.—Percentages of death and percentages of permanent total disability by date of death or disability in awarded claims of contract and automatic insurance.

moneys go out as of the day after the date of death or disability. The first disbursement represents the accrued amount of the insurance due from the beginning date to the time of the approval of the award. Diagram 23 represents the first payments made in the settlement of claims by the months in which the payments are due. It brings together in each month all the first payments which have been made prior to that month, resulting in a total bar for June,

1919, which represents the total number of first payments. All cases on which first payments have been made do not necessarily have payments going out each succeeding month for the reason that awards are sometimes terminated. The number of cases terminated and the reasons thereof are given separate consideration.

#### Initial Monthly Payment on Awarded Claims.

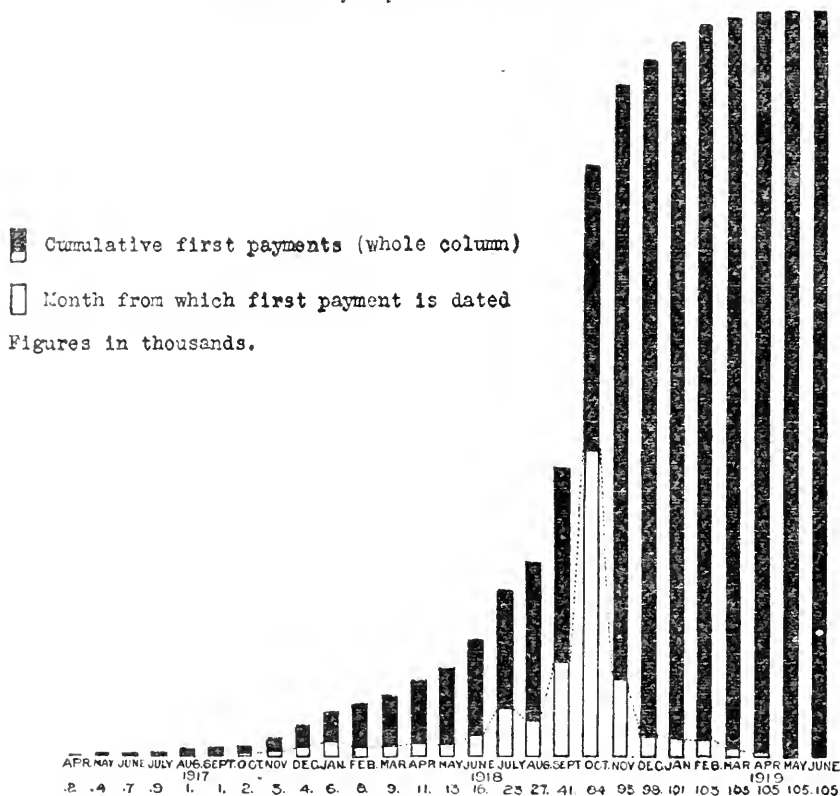


DIAGRAM 23.—Cumulative first monthly payments made on contract and automatic insurance on account of death and disability

#### VII. ORGANIZATIONS OF THE MILITARY AND NAVAL ESTABLISHMENTS

The organization study for the most part concerns itself with the four principal arms of the service; the Army, the Navy, the Marine Corps and the Coast Guard. Further detail is gained at times by a consideration of all of the organizations of the Army, jointly with the others above mentioned. The Army and Navy include the Army and Navy Nurse Corps respectively, unless otherwise specified. When the separations are made, however, women only are brought into the calculations.

Tables 11 and 12 correlate the death and disability cases awarded contract insurance each month with the organizations of the military and naval forces.

## CONTRACT INSURANCE—DEATH CASES.

TABLE 11.—Correlation of date of death with organizations of the Military and Naval Establishments.

Date.	Army.			Army Nurse Corps.			Marine Corps.			Navy.	
	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.	Monthly payment.	Amount of insurance.
1917.											
October.....	3	\$110.00	\$24,348.00								
November.....	49	2,330.00	440,000.00								
December.....	402	20,335.13	3,536,511.00	3	\$172.50	\$30,000.00	2	\$115.00	\$20,000.00	\$258.75 1,515.13	\$35,000.00 293,501.00
1918.											
January.....	729	36,193.09	6,291,430.00								
February.....	1,165	57,049.25	10,078,130.00	1	57.50	10,000.00	5	258.75	45,000.00	1,834.46	840,776.00
March.....	1,383	68,050.10	11,901,337.00	1	28.75	5,000.00	10	425.50	71,000.00	8,190.88	1,424,501.00
April.....	1,671	81,974.61	14,778,193.00	1	28.75	5,000.00	26	1,136.00	200,000.00	11,776.01	2,048,002.00
May.....	1,631	82,957.18	14,127,336.00	4	230.00	40,000.00	51	2,622.00	456,000.00	8,156.38	1,118,501.00
June.....	1,720	87,844.66	15,277,331.00	4	201.25	35,000.00	16	879.75	153,000.00	5,054.25	879,000.00
July.....	6,169	322,156.86	56,027,280.00	2	86.25	15,000.00	778	39,476.28	6,865,440.00	7,955.53	1,383,570.00
August.....	4,478	236,814.34	11,185,103.00	2	92.00	16,000.00	240	12,782.25	2,223,000.00	5,813.25	1,011,000.00
September.....	11,979	638,060.51	110,967,050.00	3	690.00	120,000.00	46	2,311.50	402,000.00	7,006.38	1,218,501.00
October.....	40,255	2,162,082.97	376,014,429.00	13	600.00	120,000.00	236	12,563.75	2,185,000.00	70,313.80	12,228,503.00
November.....	10,036	541,381.56	94,153,315.00	95	5,052.18	878,640.00	567	29,261.01	5,080,393.00	94,266.64	16,394,198.00
December.....	3,165	169,360.95	29,451,078.00	14	759.00	132,000.00	111	22,065.63	3,837,501.00	13,194.34	2,294,668.00
							51	2,909.50	506,000.00	12,273.39	2,131,503.00
1919.											
January.....	2,395	126,147.48	21,938,777.00								
February.....	2,201	117,329.31	20,405,097.00	9	517.50	90,000.00	66	3,421.25	595,000.00	12,223.02	2,125,713.00
March.....	1,125	59,705.11	10,383,503.00	7	373.75	65,000.00	46	2,416.63	425,501.00	7,587.13	1,319,501.00
April.....	371	19,366.51	3,368,089.00	1	28.75	5,000.00	17	800.75	141,000.00	6,808.00	1,181,000.00
May.....	29	1,420.25	247,000.00	2	115.00	20,000.00	4	172.50	30,000.00	4,079.63	700,501.00
June.....	2	86.25	15,000.00							201.25	35,000.00
Total.....	90,958	4,835,786.77	811,006,390.00	160	8,133.18	1,466,640.00	2,578	133,675.05	23,247,835.00	281,508.31	4,957,969.00





## CONTRACT INSURANCE—DISABILITY CASES.

TABLE 12.—Correlation of date of disability with the organizations of the Military and Naval Establishments.

Date.	Army.			Army Nurse Corps.			Marine Corps.		
	Num-ber.	Monthly payment.	Amount of insurance.	Num-ber.	Monthly payment.	Amount of insurance.	Num-ber.	Monthly payment.	Amount of insurance.
1917.									
October.....									
November.....	5	\$255.00	\$44,348.00						
December.....	4	165.00	28,696.00						
1918.									
January.....	17	752.38	130,819.00						
February.....	36	1,857.25	323,000.00				1	\$57.50	\$10,000.00
March.....	43	2,167.75	377,000.00						
April.....	35	1,690.00	292,913.00						
May.....	26	1,178.88	204,501.00						
June.....	22	1,063.75	185,000.00				4	172.50	30,000.00
July.....	23	1,065.00	185,217.00						
August.....	29	1,495.00	260,000.00				1	57.50	10,000.00
September.....	30	1,664.63	289,501.00						
October.....	30	1,640.00	285,218.00	1	\$57.50	\$10,000.00	1	57.50	10,000.00
November.....	20	1,009.50	175,565.00	1	57.50	10,000.00	1	57.50	10,000.00
December.....	14	691.25	120,217.00						
1919.									
January.....	8	437.00	76,000.00						
February.....	9	406.25	70,652.00						
March.....	6	261.25	45,435.00				1	57.50	10,000.00
April.....	5	150.00	26,087.00						
May.....	12	432.50	75,217.00						
June.....	3	115.00	20,000.00						
Total.....	377	18,491.39	3,216,116.00	2	115.00	20,000.00	9	460.00	80,000.00

Date.	Navy.			Total.		
	Num-ber.	Monthly pay-ment.	Amount of insur-ance.	Num-ber.	Monthly pay-ment.	Amount of insurance.
1917.						
October.....						
November.....				5	\$255.00	\$44,348.00
December.....				4	165.00	28,696.00
1918.						
January.....	2	\$82.50	\$14,348.00	19	834.88	145,197.00
February.....	1	57.50	10,000.00	38	1,972.25	343,000.00
March.....	6	316.25	55,000.00	49	2,484.00	432,000.00
April.....	5	258.75	45,000.00	40	1,948.75	338,913.00
May.....	7	230.00	40,000.00	33	1,405.88	244,501.00
June.....	6	207.00	36,000.00	32	1,443.25	251,000.00
July.....	5	258.75	45,000.00	28	1,323.75	230,217.00
August.....	6	287.50	50,000.00	36	1,840.00	320,000.00
September.....	1	57.50	10,000.00	31	1,722.13	299,501.00
October.....	6	305.09	53,059.00	38	2,060.09	358,277.00
November.....	4	172.50	30,000.00	26	1,297.00	225,565.00
December.....	1	57.50	10,000.00	15	748.75	130,217.00
1919.						
January.....	3	115.00	20,000.00	11	552.00	96,000.00
February.....	1	57.50	10,000.00	10	463.75	80,652.00
March.....	2	87.50	15,217.00	9	406.25	70,652.00
April.....	1	28.75	5,000.00	6	178.75	31,087.00
May.....				12	432.50	75,217.00
June.....				3	115.00	20,000.00
Total.....	57	2,579.59	448,624.00	445	21,648.98	3,765,040.00

Of the 99,625 deaths covered by contract insurance over 90 per cent were among those insured serving in the Army in comparison with nearly 3 per cent among the insured serving in the Marine Corps and with over 6 per cent among the insured serving in the Navy. There were 160 deaths in the Army Nurse Corps and 11 in the Navy Nurse Corps among those women who insured themselves. The insured members of the Coast Guard suffered 116 deaths. Of the 445 permanent total disabilities who have been awarded contract insurance nearly 85 per cent were in the Army, over 2 per cent were in the Marine Corps and about 13 per cent were in the Navy. The insured members of the Coast Guard and Navy Nurse Corps suffered no permanent total disabilities, whereas there were 2 disabilities in the Army Nurse Corps.

## AUTOMATIC INSURANCE—DEATH CASES.

TABLE 13.—Correlation of date of death with the organizations of the Military and Naval Establishments.

Date.	Army.			Army Nurse Corps.			Marine Corps.		
	Num- ber.	Monthly payment.	Amount of insurance.	Num- ber.	Monthly payment.	Amount of insurance.	Num- ber.	Monthly payment.	Amount of insurance.
1917.									
April.....	104	\$2,600.00	\$468,000.00				2	\$50.00	\$9,000.00
May.....	173	4,325.00	778,500.00	1	\$25.00	\$4,500.00	5	125.00	22,500.00
June.....	146	3,650.00	657,000.00				9	225.00	40,500.00
July.....	148	3,700.00	666,000.00				3	75.00	13,500.00
August.....	164	4,100.00	738,000.00				4	100.00	18,000.00
September.....	182	4,550.00	819,000.00				5	125.00	22,500.00
October.....	247	6,175.00	1,111,500.00				2	50.00	9,000.00
November.....	675	16,875.00	3,037,500.00	2	50.00	9,000.00	5	125.00	22,500.00
December.....	948	23,700.00	4,266,000.00				6	150.00	27,000.00
1918.									
January.....	916	22,900.00	4,122,000.00	2	50.00	9,000.00	8	200.00	36,000.00
February.....	183	4,575.00	823,500.00				2	50.00	9,000.00
Total.....	3,886	97,150.00	17,487,000.00	5	125.00	22,500.00	51	1,275.00	229,500.00
Date.	Navy.			Coast Guard.			Total.		
	Num- ber.	Monthly payment.	Amount of insurance.	Num- ber.	Monthly payment.	Amount of insurance.	Num- ber.	Monthly payment.	Amount of insurance.
1917.									
April.....	47	\$1,175.00	\$211,500.00	2	\$50.00	\$9,000.00	155	\$3,875.00	\$697,500.00
May.....	106	2,650.00	477,000.00				285	7,125.00	1,282,500.00
June.....	95	2,375.00	427,500.00	2	50.00	9,000.00	252	6,300.00	1,134,000.00
July.....	52	1,300.00	231,000.00	1	25.00	4,500.00	204	5,100.00	918,000.00
August.....	60	1,500.00	270,000.00	1	25.00	4,500.00	229	5,725.00	1,030,500.00
September.....	50	1,250.00	225,000.00	1	25.00	4,500.00	238	5,950.00	1,071,000.00
October.....	60	1,500.00	270,000.00	2	50.00	9,000.00	311	7,775.00	1,399,500.00
November.....	94	2,350.00	423,000.00				776	19,400.00	3,492,000.00
December.....	148	3,700.00	666,000.00				1,102	27,550.00	4,959,000.00
1918.									
January.....	156	3,900.00	702,000.00				1,082	27,050.00	4,869,000.00
February.....	40	1,000.00	180,000.00	1	25.00	4,500.00	226	5,650.00	1,017,000.00
Total.....	908	22,700.00	4,086,000.00	10	250.00	45,000.00	4,860	121,500.00	21,870,000.00

## AUTOMATIC INSURANCE—DISABILITY CASES.

TABLE 14.—*Correlation of date of disability with the organizations of the Military and Naval Establishments.*

Date.	Army.			Navy.		
	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.
1917.						
April.....	2	\$50.00	\$9,000.00			
May.....	1	25.00	4,500.00			
June.....						
July.....	8	200.00	36,000.00	1	\$25.00	\$4,500.00
August.....	4	100.00	18,000.00	1	25.00	4,500.00
September.....	5	125.00	22,500.00			
October.....	19	475.00	85,500.00	2	50.00	9,000.00
November.....	16	400.00	72,000.00	4	100.00	18,000.00
December.....	23	575.00	103,500.00	1	25.00	4,500.00
				3	75.00	13,500.00
1918.						
January.....	20	500.00	90,000.00			
February.....	9	225.00	40,500.00			
Total.....	107	2,675.00	481,500.00	12	300.00	54,000.00

Date.	Coast Guard.			Total.		
	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.
1917.						
April.....				2	\$50.00	\$9,000.00
May.....				1	25.00	4,500.00
June.....				1	25.00	4,500.00
July.....				9	225.00	40,500.00
August.....	1	\$25.00	\$4,500.00	5	125.00	22,500.00
September.....				7	175.00	31,500.00
October.....				23	575.00	103,500.00
November.....				17	425.00	76,500.00
December.....				26	650.00	117,000.00
1918.						
January.....				20	500.00	90,000.00
February.....				9	225.00	40,500.00
Total.....	1	25.00	4,500.00	120	3,000.00	540,000.00

In the same way Tables 13 and 14 present the deaths and disabilities for which automatic insurance has been awarded. Of the 4,860 cases covered, about 80 per cent of the deaths were in the Army, 1 per cent in the Marine Corps, and nearly 19 per cent in the Navy, with 10 deaths in the Coast Guard, 5 in the Army Nurse Corps, and none in the Navy Nurse Corps. The 120 permanent total disabilities awarded automatic insurance were divided as follows: 107 Army, 12 Navy, 1 Coast Guard.

## CONTRACT INSURANCE—DEATH AND DISABILITY CASES.

TABLE 15. *Organizations of the Military and Naval Establishments.*

Organization	Death			Disability			Total	
	Number	Monthly payment	Amount of insurance	Number	Monthly payment	Amount of insurance	Number	Monthly payment
Army Nurse Corp.	90,978	\$1,825,756.75	\$81,000,300.00	377	\$18,494.39	\$8,204,416.00	91,355	\$1,844,251.15
Army Nurse Corp.	100	8,426.18	1,405,000.00	2	113.00	2,000.00	102	8,539.18
Marine Corps	2,568	133,975.15	2,247,855.00	9	460.00	86,000.00	2,577	134,435.15
Navy Nurse Corp.	56,802	\$81,208.41	\$8,357,999.00	6	\$2,520.50	118,624.00	56,808	\$83,728.91
Navy Nurse Corp.	11	603.75	105,000.00	.....	.....	.....	11	603.75
Coast Guard	116	4,515.11	790,506.00	.....	.....	.....	116	4,515.11
Total	91,675	\$2,045,522.47	\$95,571,340.00	115	\$21,048.98	\$3,765,040.00	101,670	\$2,066,571.45

## AUTOMATIC INSURANCE—DEATH AND DISABILITY CASES.

TABLE 16. *Organizations of the Military and Naval Establishments.*

Organization	Death			Disability			Total	
	Number	Monthly payment	Amount of insurance	Number	Monthly payment	Amount of insurance	Number	Monthly payment
Army Nurse Corp.	3,886	\$96,450.00	\$17,487,000.00	.....	.....	.....	3,886	\$96,450.00
Army Nurse Corp.	5	125.00	22,500.00	.....	.....	.....	5	125.00
Marine Corps	51	1,275.00	251,500.00	.....	.....	.....	51	1,275.00
Navy Nurse Corp.	908	\$2,700.00	4,086,000.00	12	\$90.00	\$1,000.00	920	\$2,790.00
Navy Nurse Corp.	10	250.00	45,000.00	1	25.00	4,000.00	11	275.00
Coast Guard	.....	.....	.....	120	\$3,000.00	\$10,000.00	120	\$3,000.00
Total	4,860	\$121,500.00	\$21,870,000.00	132	\$3,000.00	\$14,000.00	4,992	\$124,500.00

TABLE 17.—Summary: Organizations of the Military and Naval Establishments.

Organization.	Death.		Disability.		Total.	
	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.
Army Nurse Corps.....	94,844	\$4,932,936.77	\$858,493,340.00	484	\$21,169.39	\$3,697,916.00
Army Nurse Corps.....	105	8,558.18	1,489,140.00	2	115.00	20,000.00
Marine Corps.....	2,629	134,950.05	23,477,335.00	9	400.00	80,000.00
Navy.....	6,710	304,298.31	53,043,969.00	69	2,879.50	502,024.00
Navy Nurse Corps.....	11	603.75	105,000.00	11	.....	.....
Coast Guard.....	126	4,785.41	835,306.00	1	25.00	4,500.00
Total.....	104,485	5,380,052.47	937,444,340.00	555	24,648.98	4,305,040.00
				105,039	5,410,701.45	941,749,380.00

All the totals, irrespective of the date of occurrence of the deaths or disabilities, are found in the preceding summary tables. The Army, the Marine Corps, and the Navy, including the Coast Guard, are taken as the basis for the study made in diagram 24 shown below.

Army, Marine Corps and Navy.

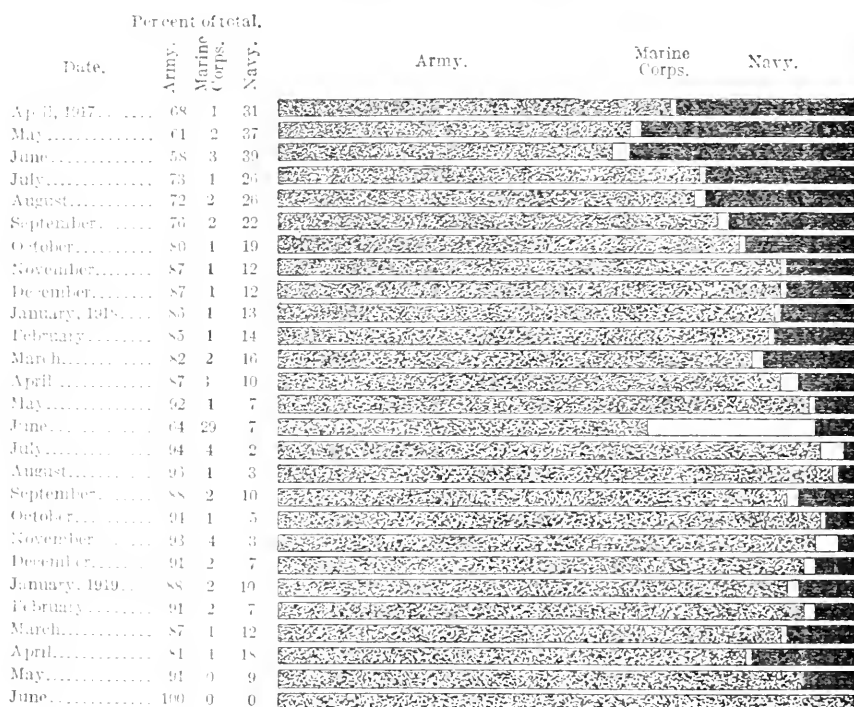


Diagram 24.—A comparative study of the relative number of contract and automatic insurance claims awarded for each month of death or disability for the Army, Marine Corps and Navy. In this study the Coast Guard is grouped with the Navy.

The part of the offensive engaged in by the Marine Corps during June resulted in a comparatively heavy loss. In general it is observed that the Navy loss was heavy early but decreased gradually in comparison with the Army, in which heavier losses were sustained later.

## CONTRACT AND AUTOMATIC INSURANCE—DEATH CASES.

TABLE 18.—*Correlation of date of death with organization.*

Date.	Infantry.	Depot Brigade.	Field Artillery.	Engineer Corps.	Machine Gun.	Medical Corps.	Signal Corps.	Quartermaster Corps.	Training Corps.	Coast Artillery.
1917.										
April.....	71				3	3	4	5		8
May.....	107	1		2	4	4	8	5		17
June.....	90	1		3	2	10	5	5	1	7
July.....	86			7	6	10	1	6		6
August.....	105			10	1	8	3	5	1	9
September.....	105	1		6	7	11	8	7		7
October.....	112	20	28	13	16	14	6	8		10
November.....	267	39	91	50	44	30	11	14		11
December.....	591	193	162	116	89	43	27	38	3	15
1918.										
January.....	563	151	161	135	82	89	146	65	2	39
February.....	397	70	131	172	58	65	151	37	6	42
March.....	455	70	128	150	76	106	131	28	4	41
April.....	592	166	145	160	71	98	117	52	6	72
May.....	788	116	89	121	117	80	80	29	5	35
June.....	878	97	101	149	98	66	76	33	5	36
July.....	4,637	102	268	234	391	117	88	41	2	39
August.....	3,178	136	262	176	210	86	78	42	5	20
September.....	7,839	776	545	443	717	327	167	126	50	98
October.....	18,710	4,979	2,529	2,013	1,772	2,429	611	817	1,256	737
November.....	6,691	398	517	407	612	6	2	116	298	210
December.....	942	189	341	216	113	203	96	117	179	69
1919.										
January.....	639	185	253	152	83	168	36	122	70	59
February.....	636	81	287	179	123	153	59	115	20	38
March.....	361	48	118	99	54	79	32	52	3	16
April.....	153	14	23	28	11	30	4	18	2	5
May.....	8	3	2	2	1	2	1	1		1
June.....	2									
Total all organizations..	49,103	7,746	6,184	5,043	4,761	4,237	1,961	1,937	1,918	1,647
Claims awarded in cases of death occurring since men left service.....	95	109	42	14	15	25	10	21	36	18

TABLE 18. *Circulation of date of death with organization—Continued.*

Date	Artillery	Infantry	Motor Transportation	Ordnance	Cavalry	Tank Service	Chemical Service	Trench Mortar	Balloon Corps	Adjutant General
1917.										
April					5	5				
May	2				14	5				
June					16	6				
July					15	8				
August				1	10	10				
September	3	1		1	7	16				
October	1	3	1		6					
November	5	11	3	3	6			2		
December	12	37	1	5	2		1	2		
1918.										
January	26	59	11	8	12			1	4	
February	63	18	7	11	20			19	1	
March	53	16	3	13	20			4		3
April	36	15	3	11	27	1		9	3	
May	18	20	4	6	18			5	5	
June	19	19	1	5	18			2		
July	55	34	3	9	24	3	1	10	1	1
August	74	38	18	5	12	1	2	6	2	
September	112	130	99	37	31	47	22	37	6	2
October	155	633	876	348	138	227	191	68	165	1
November	212	94	2		37	1		23	15	1
December	151	109	121	26	41	15	13	11	24	3
1919.										
January	161	195	110	35	16	8	8	13	15	2
February	62	80	127	65	17	8	9	8	8	1
March	35	41	72	22	10	4	4	3	2	2
April	25	14	16	5		1		1		1
May	5	1				1			1	
June										
Total all organizations.	1,638	1,501	1,481	617	542	368	231	215	192	20
Claims awarded in cases of death occurring since men left service.										
	21	4	6	3	5	3	2	0	2	1



TABLE 18.—*Correlation of date of death with organization*—Continued.

Date.	General Staff.	Inspector General.	Judge Advocate General.	Marine Corps.	Navy.	Coast Guard.	Army Nurse Corps.	Navy Nurse Corps.	No organization recorded.	Total for each month of award.
1917.										
April.....				2	47	2				155
May.....				5	106		1		4	285
June.....				9	95	2				252
July.....				3	52	1			3	204
August.....				4	60	1			1	229
September.....				5	50	1			2	238
October.....				2	60	2			12	314
November.....				5	99	1	2		31	831
December.....				8	185		3		90	1,546
1918.										
January.....				13	257	2	2		91	1,919
February.....	1			12	218	1	1	1	88	1,581
March.....				26	268	4	1	1	82	1,683
April.....				51	187		1		87	1,910
May.....				16	111	2	4		65	1,764
June.....				778	181	2	4		83	2,685
July.....				240	132	4	2	1	106	6,548
August.....			1	46	150	1	3		126	4,678
September.....				236	1,359	60	13	3	338	13,650
October.....	1	1		567	1,894	19	95	3	1,335	42,833
November.....				414	270	7	14		344	10,741
December.....			1	54	264	6			182	3,489
1919.										
January.....		2		66	262	3	9		213	2,735
February.....	2	1		46	163	3	7		118	2,420
March.....				17	151	2	1	2	68	1,298
April.....				4	85		2		20	462
May.....					4					33
June.....										2
Total all organizations..	4	4	2	2,629	6,710	126	165	11	3,489	104,485
Claims awarded in cases of death occurring since men left service.....	0	0	1	3	42	0	0	0	37	515

## CONTRACT AND AUTOMATIC INSURANCE—DISABILITY CASES.

TABLE 19. —Correlation of date of disability with organization.

Date	Infantry.	Depot Brigade.	Field Artillery.	Engineer Corps.	Machine Gun.	Medical Corps.	Signal Corps.	Quartermaster Corps.	Training Corps.	Coast Artillery.
1917.										
April.....	1									1
May.....						1				
July.....	5									3
August.....	2					1				
September.....	3		1			1				
October.....	7		3	1	1	1	3			
November.....	10	1	2				1	1		2
December.....	14	2	4	1	2	1		2		
1918.										
January.....	20	1	1	3	7	2	1			1
February.....	19	3	5	2	3	2	2			3
March.....	16	3	3	3	5	4	1			1
April.....	14	3	3	3	3	1		3		1
May.....	11	5	2	1			1	3		1
June.....	8	2	1	3	3		1	3		
July.....	8	5	4	3						
August.....	6	5	1	1		5	1	4		1
September.....	20	2	1	1						
October.....	18	2	1	1	2	4				
November.....	10	4	1			2				
December.....	4	2		3	1	1				1
1919.										
January.....	1	1	1			4				
February.....	5			1	1					1
March.....			1	1			1	1		
April.....	3						1			
May.....	6			1	1	1	1			1
June.....	2						1			
Total, all organizations..	213	41	36	32	30	52	15	20		17
Date	Aviation.	Labor Battalion.	Motor Transport.	Ordnance.	Cavalry.	Tank Service.	Chemical Service.	Trench Mortar.	Balloon Corps.	Adjutant General.
1917.										
November.....				1					1	
December.....	1									
1918.										
January.....					1					
February.....				1		1				1
March.....	1			2		1				
April.....	1		1			2				
May.....						1				
July.....	1									
August.....			1			1				
October.....						1				
November.....	1									
December.....			1				1			
1919.										
January.....						1				
February.....			1							
March.....			1	1						
April.....	1									
May.....				1						
Total, all organizations..	6		5	6	8	1	1		1	1

TABLE 19.—*Correlation of date of disability with organization—Continued.*

Date.	General Staff.	Inspector General.	Judge Advocate General.	Marine Corps.	Navy.	Coast Guard.	Army Nurse Corps.	Navy Nurse Corps.	No organization recorded.	Total for each month of award.
1917.										
April.....										2
May.....										1
June.....					1					1
July.....					1					9
August.....						1				5
September.....					2					7
October.....					4				3	23
November.....					1				1	22
December.....					3					30
1918.										
January.....					2					39
February.....				1	1				3	47
March.....					6					49
April.....					5					40
May.....					7				1	33
June.....				4	6				1	32
July.....					5				1	28
August.....				1	6				3	36
September.....					1				3	31
October.....				1	6		1		1	38
November.....				1	4		1		2	26
December.....					1					15
1919.										
January.....					3					11
February.....					1					10
March.....				1	2					9
April.....					1					6
May.....										12
June.....										3
Total, all organizations.....				9	69	1	2		19	565

Nearly 52 per cent of the Army deaths and 44 per cent of the Army disabilities among those awarded insurance were members of the Infantry, the death quota being heavier in the Infantry than in the Navy, the Marine Corps, or the Coast Guard. Comparison based on the numbers exposed to war risks are not attempted at this time as all the necessary facts are not available. However, Infantry, being one of the largest organizations, stands out as suffering most severely. That the depot brigade stands second in the scale of death loss is explained by the fact that it was composed of men from all stages of service experience. It acted as receiving unit for those entering the service. All men with suspected diseases were held until definite diagnosis could be made and during the influenza epidemic many men died before being assigned to other organizations. Men serving in other organizations who became incapacitated were placed in the depot brigade pending recovery or discharge. About 97 per cent of all deaths in this service were caused by disease. The Medical Corps group represents all medical detachments or companies attached to the various organizations, and although it is a comparatively small corps, it stands high in the mortality experience under observation. About 94 per cent of all deaths in this service were caused by disease.

Table 18 affords a study of the deaths which occurred out of the service in connection with the organization prior to discharge. Whereas the figure for the awarded insurance cases for deaths in the

Infantry is carried as 49,103, only 49,008 died as infantrymen in the service; the remaining 95 died after separation from the service. That their last service connection was with the Infantry is the reason for so classifying them. Some of these 95 cases were disabled, though it was not of a permanent and total nature at the time of discharge

## Organizations.

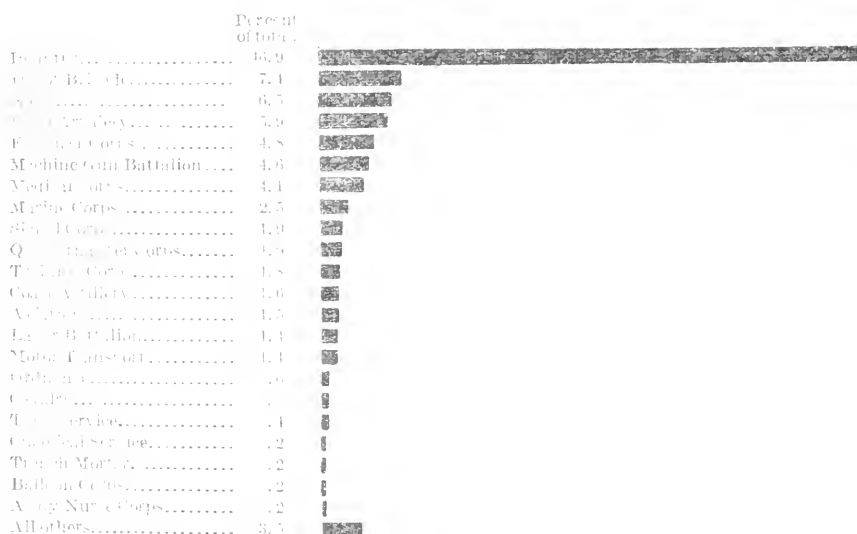


DIAGRAM 25. The total number of contract and automatic insurance claims awarded for death and disability distributed according to organizations.

from the service and others were normal individuals at that time. The same statements obtain for the other organizations making a total of 515 of the deaths occurring after discharge. Study of deaths of disabilities and of other deaths out of the service is pursued later.

## Organizations.

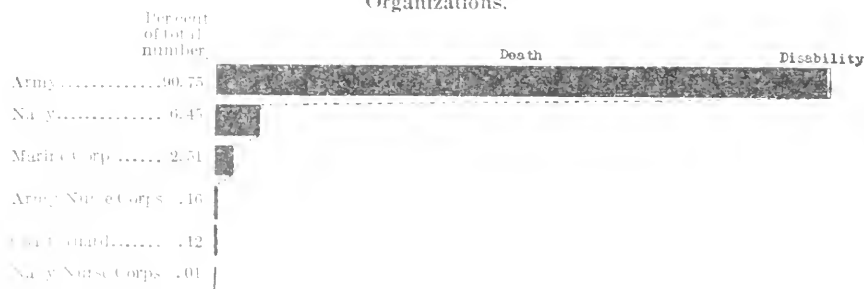


DIAGRAM 26. The total number of contract and automatic insurance claims awarded for death and for disability distributed by organization.

A comparative study of the losses sustained by the various organizations as tabulated above is demonstrated by means of diagram 25.

Further illustrations of the total number of death and disability awards separated by organizations are made by means of diagrams 26 and 27. The first of these shows the death and disability separa-

tion whereas the second makes a separation into those cases awarded contract insurance and those awarded automatic insurance. Both diagrams show the same general characteristics of the predominance of the Army deaths and disabilities over those of the other organizations.

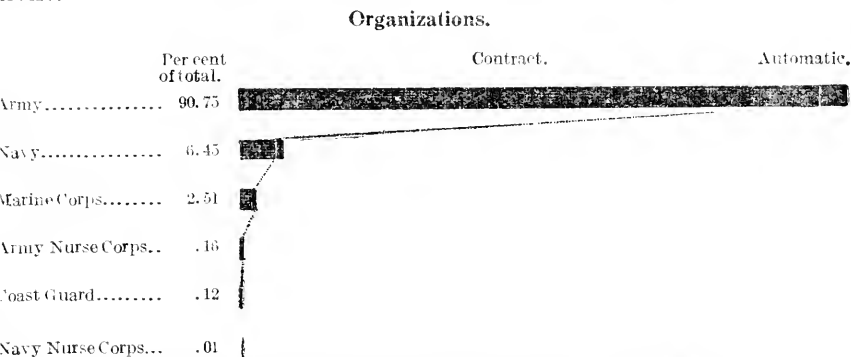


DIAGRAM 27.—The relative number of claims for contract and automatic insurance awarded for the various organizations of the insured at the time of death or of disability.

The average policy amount upon which a claim for contract insurance has been awarded is shown in diagram 28 for each of the four principal organizations. The Army leads, with the Marine Corps, which was associated with it, closely following. That the Army leads is no doubt largely due to the very enthusiastic campaign carried on by this branch of the service for the purpose of stimulating the taking out of insurance.

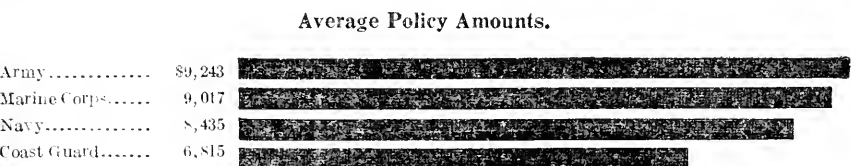


DIAGRAM 28.—A comparison of the average amount of contract insurance policies held by members of the military and naval establishments upon which claims have been awarded.

### VIII. CAUSES OF DEATH AND OF DISABILITY.

A study of the principal conditions and diseases responsible for the mortality and disability among the insured has been pursued in an endeavor to reveal facts that may be of significant enlightenment in the control of the spread of causative diseases among the general population. The investigation of the group of deaths and disabilities exclusively of military origin has no bearing whatsoever on the alleviation of ordinary peace conditions and therefore, does not attempt the same extent of detail into which the study of causative diseases is carried.

The classification used throughout the study is the "International list of causes of death." There have been a few variations, however, from this list. No diseases of infancy or old age or of the puerperal state are included, while other diseases of vital importance among the fighting forces have been emphasized, e. g., syphilis, alcoholism,

diseases of the eye, etc. The handling of jointly reported causes of death has also been regulated by this list in so far as available information made it possible.

Table 20 presents a complete list of traumatisms and diseases causing the deaths and disabilities of those insured by contract or

CONTRACT AND AUTOMATIC INSURANCE—DEATH AND DISABILITY CASES.

TABLE 20. — *Disease and Traumatism causes of death or of disability.*

Cause	Contract.			Automatic.			Total.		
	Death.	Disability.	Total.	Death.	Disability.	Total.	Death.	Disability.	Total.
Disease or injury	72		72	47		47	119		119
TRAUMATISMS.									
Accidents	171	1	172	25		25	196	1	197
Section, killed or wounded in	41,065	69	41,104	27	1	28	41,062	70	41,132
Airplane	810	2	812	24		24	834	2	836
Ammunition, bombs, grenades, etc.									
Ammunition, etc.	169	7	176	5		5	174	7	181
Animals, injured by	47	1	48	21		21	68	1	69
Atletics	8		8	5		5	13		13
Automobile and truck	322	1	323	56		56	378	1	379
Balloon	3	1	4				3	1	4
Bayonet	11		11	1		1	11	1	12
Chemical	13		13	3		3	16		16
Conflagration	27		27	7		7	34		34
Cold, excessive	3		3	3		3	6		6
Drill	4		4				4		4
Drowning	506		506	147		147	653		653
Explosion	216	1	217	11		11	227	1	228
Fall of objects	43	1	44	14		14	57	1	58
Fall of persons	126	1	127	36		36	162	1	163
Foreign objects	3		3	2		2	5		5
Gas (poisonous)	555	6	561	12		12	573	6	579
Gunshot wounds	105	2	107	79		79	184	2	186
Injuries	240	2	242	64		64	304	2	306
Killed	64		64	21		21	85		85
Lost at sea	1,205		1,205	164		164	1,369		1,369
Machinery	12		12	2		2	14		14
Missing in action	54		54				54		54
Motorcycle	101		101	9		9	110		110
Murder	34		34	14		14	48		48
Poisoning	56		56				56		56
Railroad train (steam and electric)	494	3	494	159	4	163	650	7	657
Shell shock	16		16				16		16
Shot	224		224	33		33	257		257
Strangulation	7		7	4		4	11		11
Suicide	498		498	135		135	633		633
Wagon, animal drawn	17		17	2		2	19		19
DISEASES.									
Disease	151	1	152	263		263	414	1	415
Abscess	155		155	26		26	181		181
Alcoholism	27	1	28	21		21	48	1	49
Anthrax	17		17				17		17
Apoplexy, cerebral hemorrhage	49	2	51	24		24	109	2	111
Apoplexy, pulmonary	16		16	1		1	17		17
Appendicitis	345		345	68		68	413		413
Asthma	8	1	9	3		3	11	1	12
Babster, diseases of	11	1	12	3		3	14	1	15
Bones, diseases of (other than tuberculosis)	16		16	10		10	26		26
Bright's disease	240	14	254	46	1	47	326	15	341
Bronchitis	62		62	8		8	70		70
Cancer and other tumors	169	10	179	17		17	126	10	136
Circulatory system, other diseases of	126	9	135	30		30	156	9	165
Diabetes	111	12	123	21	2	23	135	14	149
Digestive system, other diseases of (except cancer and tuberculosis)	212	1	213	31		31	243	1	244
Diphtheria	166		166	17		17	183		183
Ears, diseases of	72	1	73	1		1	73	1	74
Endocarditis	72	3	75	15		15	87	3	90
Epilepsy	21	1	22	9		9	30	1	31
Eyes, diseases of	2	16	18	1	2	3	3	18	21
Gangrene	12		12	1	1	2	13	1	14

TABLE 20.—*Disease and traumatism causes of death or of disability—Continued.*

Cause.	Contract.			Automatic.			Total.		
	Death.	Disability.	Total.	Death.	Disability.	Total.	Death.	Disability.	Total.
<b>DISEASES—continued.</b>									
Genito-urinary system, other diseases of.....	6	.....	6	.....	.....	.....	6	.....	6
Gonococcus infection.....	2	.....	2	2	.....	2	.....	.....	4
Heart, diseases of.....	495	23	428	81	7	88	486	30	516
Hernia.....	20	4	24	8	.....	8	28	4	32
Influenza and pneumonia.....	17,198	1	17,199	2	1	3	17,200	2	17,202
Influenza.....	1,238	.....	1,238	8	.....	8	1,246	.....	1,246
Joints, diseases of.....	5	3	8	2	.....	2	7	3	10
Kidneys, other diseases of.....	47	2	49	7	.....	7	54	2	56
Liver, diseases of.....	50	.....	50	7	.....	7	57	.....	57
Locomotor ataxia.....	2	.....	2	.....	.....	.....	2	.....	2
Malaria.....	14	.....	14	5	.....	5	19	.....	19
Malformations.....	6	2	8	.....	.....	.....	6	2	8
Measles.....	74	.....	74	51	2	53	105	2	107
Measles and pneumonia.....	696	.....	696	409	.....	409	1,105	.....	1,105
Meningitis.....	1,863	4	1,867	483	3	486	2,346	7	2,353
Mental alienation.....	64	19	83	12	5	17	76	24	100
Nervous system, other diseases of.....	39	4	43	16	3	19	55	7	62
Neuritis and neuralgia.....	3	1	4	.....	.....	.....	3	1	4
Nose, diseases of.....	3	.....	3	.....	.....	.....	3	.....	3
Paralysis.....	28	4	32	4	.....	4	32	4	36
Pericarditis.....	32	1	33	5	.....	5	37	1	38
Peritonitis.....	162	1	163	22	.....	22	184	1	185
Pleurisy.....	162	1	163	40	1	41	202	2	204
Pneumonia and empyema.....	25,675	10	25,685	1,548	1	1,549	27,223	11	27,234
Pott's disease.....	1	.....	1	.....	.....	.....	1	.....	1
Purulent infection—Septicæmia.....	244	1	245	53	.....	53	297	1	298
Respiratory system, other diseases of.....	42	2	44	9	.....	9	51	2	53
Rheumatism.....	26	4	30	3	.....	3	29	4	33
Scarlet fever.....	176	.....	176	43	.....	43	219	.....	219
Skin, diseases of.....	36	.....	36	7	.....	7	43	.....	43
Smallpox.....	9	.....	9	1	.....	1	10	.....	10
Spleen, diseases of.....	2	1	3	.....	.....	.....	2	1	3
Stomach, diseases of (except cancer).....	43	1	44	8	.....	8	51	1	52
Syphilis.....	42	8	50	17	.....	17	59	8	67
Tuberculosis, meningitis.....	63	.....	63	9	.....	9	72	.....	72
Tuberculosis, lungs.....	1,046	165	1,211	107	79	186	1,153	244	1,397
Tuberculosis, all other (except Pott's disease).....	188	4	192	16	4	20	204	8	212
Typhoid fever.....	183	.....	183	25	1	26	208	1	209
Typhus fever.....	1	.....	1	1	.....	1	2	.....	2
Miscellaneous diseases.....	358	8	366	126	1	127	484	9	493
Total.....	99,625	445	100,070	4,860	120	4,980	104,485	565	105,050

automatic insurance. The body of the table is self-explanatory. However, some groups may require individual explanation. The group "Disease or injury," perhaps, seems a very broad classification for statistical purposes. The material available for the study of causes of death is in a great measure confined to the reports sent in by The Adjutant General's Office. There are a great many cases where that office has been unable to ascertain anything more definite than that the death was resultant from a disease or an injury, and therefore so reports it. As there was a sufficiently large number of cases of this kind it was deemed preferable not to classify them either in the "Disease" group or in that composed of "Injuries," but to create a separate group to cover all cases in which no further information was forthcoming as to the cause of the death. When all traumatisms are combined in a group and all diseases are thrown in a second group the "Disease or injury" group is considered a traumatism. The group "Miscellaneous diseases" is composed chiefly of cases in which

something definite was reported, but which could not be classified under any of the various other groups. The third group warranting explanation is that under the heading "All other forms of tuberculosis." Tuberculosis of the lungs and meningeal tuberculosis form separate groups. In addition there are a number of rather indefinite causes of death reported which, though vaguely diagnosed by the physician, reveal the fact that the disease was probably of tubercu-

### Causes of Death.

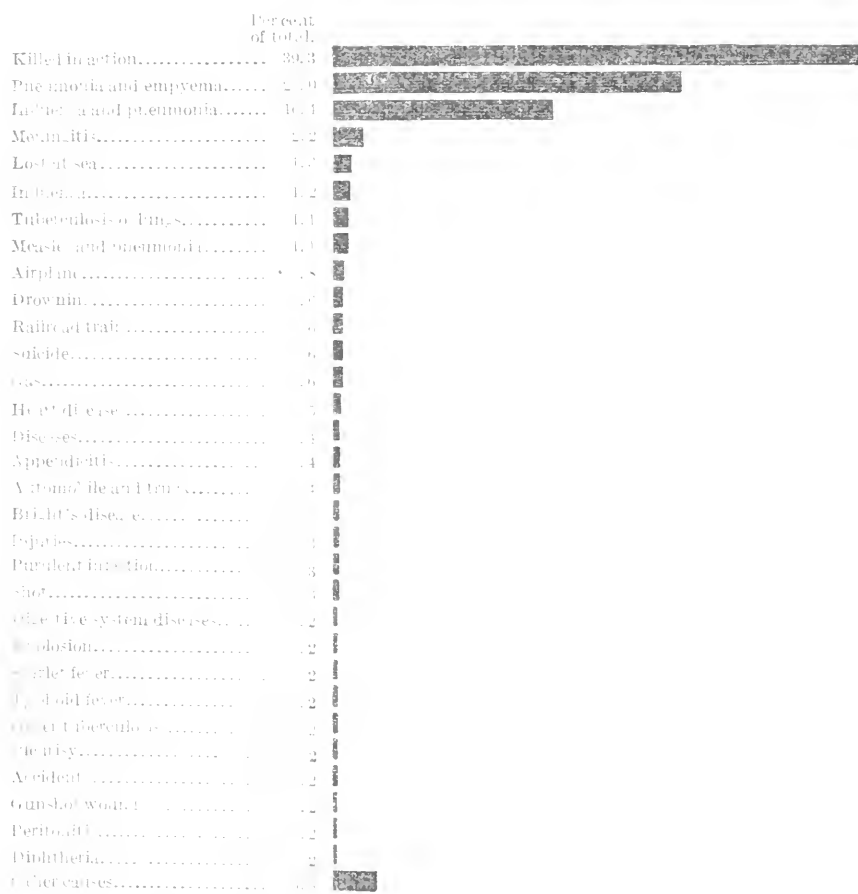


Diagram 29. Causes of death of insured in cases where contract and automatic insurance claims have been awarded.

lous origin. So into this group were placed all cases of tuberculosis in which the location of the lesion was other than the brain or the lungs.

Diagram 29 shows the comparative ratios of the principal causes of death of the insured to the total death cases awarded insurance.

The number of those killed in action quite naturally exceeds those dying from any other single cause. By way of explanation it might be said that the group classified as death caused by "Gunshot wounds"



is composed of persons dying as a result of wounds inflicted accidentally and not in action. The class "Killed in action" carries all cases of deaths in action with the exception of those "Gassed," and a part of those "Lost at Sea."

Diagram 30 makes the comparison of the number of traumatisms with the number of diseases.

Of the 105,050 awarded claims, a little more than one-half was comprised of death by disease. It is noteworthy that, of the traumatisms by far the greater part falls into the group of those awarded contract insurance. This is quite natural in view of the fact that the time within which automatic insurance might apply was previous to the time of the active engagement of our troops on the European front. Less than one-fourth of the total number of awarded claims for automatic insurance is composed of the group of traumatisms,

### Traumatisms and Diseases.

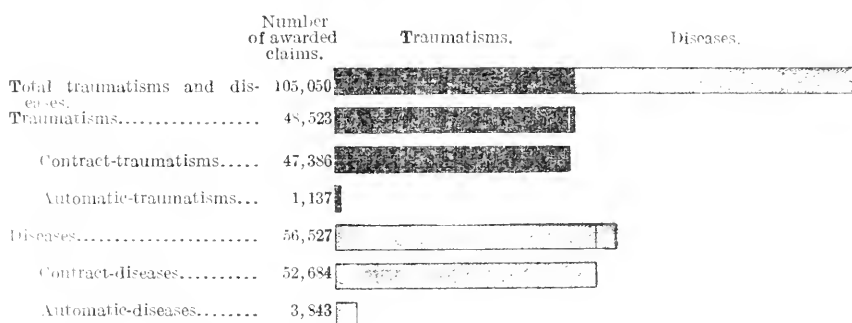


DIAGRAM 30.—The total number of death and disability claims awarded on contract and automatic insurance showing separation of cases into traumatisms and diseases.

whereas the remaining cases fall into the "Disease" class. Of these traumatisms covered by automatic insurance only 40 represent battle deaths or disabilities.

### INFLUENZA INCIDENCE.

Of the diseases responsible for the deaths and disabilities of persons in the American forces, influenza and its complications stand out as the most disturbing. For this reason, it is given separate consideration in this study. Though the epidemic ran its course among the troops abroad, among those en route and among those at home it will be observed that its intensity was very much greater in the United States. If influenza is considered as an epidemic only during the three months September, October, and November, 1918, and if the deaths recorded under pneumonia during that period are considered as belonging to the epidemic, it will be found that 74 per cent of the combined influenza and pneumonia deaths occurred during the epidemic. Of the influenza deaths, 89 per cent were within the epidemic period while only 64 per cent of the pneumonia deaths fell within these limits. The great majority of the deaths from influenza were recorded under the joint cause "influenza and pneumonia," rather than under the single cause "influenza," indicating that most of those cases ending fatally culminated in pneumonia.

Diagram 31 makes a study of the total influenza mortality and bears out the foregoing statement.

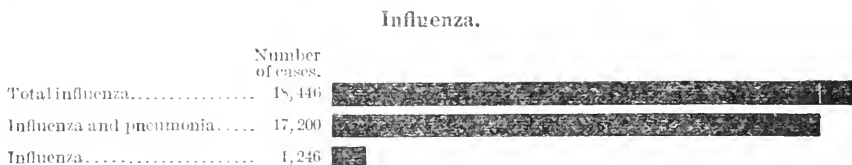


DIAGRAM 31.—Influenza as a primary or secondary cause of death in claims awarded for contract and automatic insurance.

#### PNEUMONIA.

The next logical study is that of pneumonia as a causative agent. It has been seen that this disease was the fatal factor in the influenza epidemic. Diagram 32 presents the total number of death cases resulting from pneumonia, either directly or as the complication of another disease. Measles and pneumonia jointly caused over

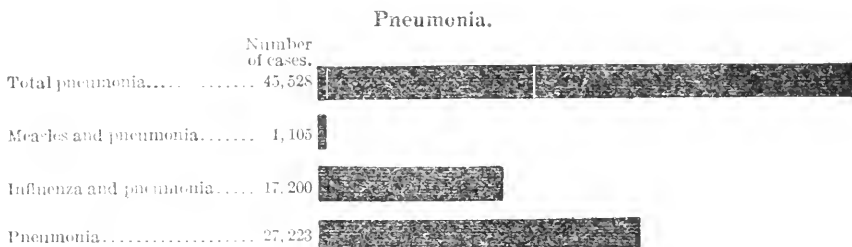


DIAGRAM 32.—Pneumonia as a cause of death in claims awarded for contract and automatic insurance.

a thousand deaths. Pneumonia, either as primary or secondary cause, however, composes a group larger than that of any other disease.

#### TUBERCULOSIS.

Tuberculosis during the war emergency played its usual important part as a death bringing agent. As it is impossible to detect the incipient stages of this disease unless a very thorough examination is made,

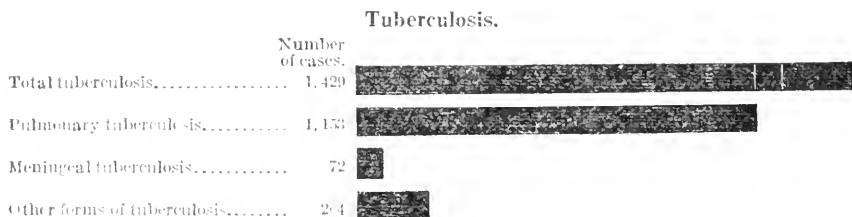


DIAGRAM 33.—Tuberculosis as a cause of death in claims awarded for contract and automatic insurance.

no doubt many persons with slight tuberculosis or tuberculous tendency were accepted in the service. The exposure incident to the training gave the disease the necessary chance, and a comparatively large number of persons succumbed.

Diagram 33 presents the facts of the tuberculosis mortality. It will be seen that of the three heads, "Pulmonary tuberculosis," "Meningeal tuberculosis" and "Other forms of tuberculosis," the group of pulmonary tuberculosis, or tuberculosis of the lungs, merits special attention. This form of tuberculosis exacted by far the greatest number of lives in the entire tuberculosis incidence, as related to the lives of the insured.

#### RESPIRATORY DISEASES.

Classifying influenza and tuberculosis of the lungs as diseases of the respiratory system the importance of the entire group of diseases of this system can be at once recognized, as shown by diagram 34. Almost nine-tenths of all causative diseases are those of the respiratory system.

#### Respiratory Diseases.



DIAGRAM 34.—Diseases of the respiratory system causing death compared with deaths from all other disease causes in the awarded claims of contract and automatic insurance.

#### CONTRACT AND AUTOMATIC INSURANCE—DEATH CASES.

TABLE 21.—All diseases of the respiratory system as causes of death.

	Number.	Per cent of all respiratory system.	Per cent of all disease deaths.	Per cent of all deaths.
Pneumonia and empyema.....	27,223	56.4	48.6	26.0
Influenza and pneumonia.....	17,200	35.6	30.7	16.5
Influenza.....	1,246	2.6	2.2	1.2
Pulmonary tuberculosis.....	1,153	2.4	2.1	1.1
Measles and pneumonia.....	1,105	2.3	2.0	1.1
Pleurisy.....	202	.4	.4	.2
Bronchitis.....	70	.1	.1	.1
Pulmonary apoplexy.....	17	.1	.01	.0
Asthma.....	11	.0	.01	.0
All other diseases of respiratory system.....	51	.1	.1	.0
All diseases of respiratory system.....	48,278	100.0	86.1	46.2

In summation diagram 35 presents the principal groups of traumas and the four principal disease groups, showing the ratios of these

groups. It will be noted that of the traumatisms the group representing the number of persons killed in action and of the diseases, those dying of pneumonia, meningitis, tuberculosis or influenza make up

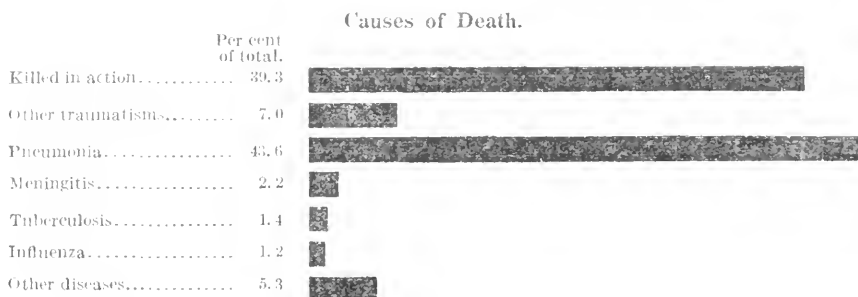


DIAGRAM 35.—Analysis of the principal traumatisms and diseases resulting in death in cases for which contract and automatic insurance claims have been awarded.

very nearly nine-tenths of the total deaths of the insured. Diagram 36 compares the principal traumatism causes with the principal disease causes.

#### Traumatisms and Diseases.

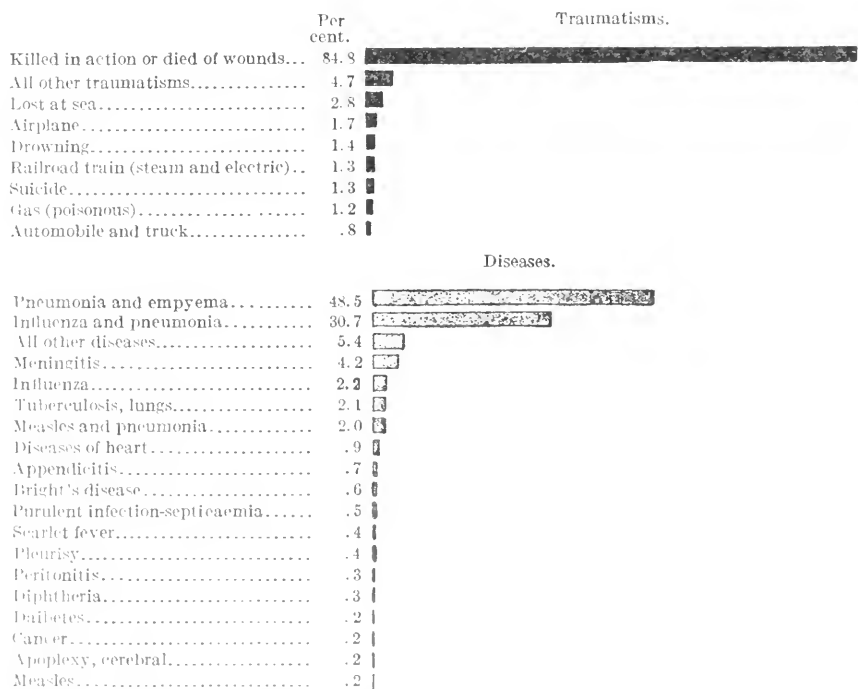


DIAGRAM 36.—A comparison between the principal traumatism causes and the principal disease causes of death for which contract and automatic insurance claims have been awarded.

Table 22 makes a correlation of all causes of death and disability with the organizations of the insured. Very naturally the largest groups fall in the Army.

## CONTRACT AND AUTOMATIC INSURANCE—DEATH AND DISABILITY CASES.

TABLE 22.—*Causes of death or disability correlated with military and naval organizations of the insured.*

Cause.	Death.					Disability.					Total death and disability.
	Army and Navy Nurse Corps.	Marine Corps.	Navy and Navy Nurse Corps.	Coast Guard.	Total deaths.	Army and Navy Nurse Corps.	Marine Corps.	Navy and Navy Nurse Corps.	Coast Guard.	Total disability.	
Disease or injury.....	112	1	6		119						119
TRAUMATISMS.											
Accidents.....	161	3	32		196			1		1	197
Action, killed or wounded in.....	39,179	1,852	31		41,062	66	4			70	41,132
Airplane.....	724	15	95		831	1		1		2	836
Ammunition (bombs, grenades, explosives, etc.).....	166		8		174	7				7	181
Animals, injured by.....	67		1		68	1				1	69
Athletics.....	8		5		13						13
Automobile and truck.....	341	4	32	1	378	1				1	379
Balloon.....	3				3			1		1	4
Bayonet.....	11				11	1				1	12
Chemicals.....	11	1	4		16						16
Conflagrations.....	19		15		34						34
Cold, excessive.....	3		3		6						6
Drill.....	4				4						4
Drowning.....	450	7	191	5	653						653
Explosives.....	159	1	67		227	1				1	228
Fall of objects.....	42	2	13		57			1		1	58
Fall of persons.....	117	4	41		162	1		1		1	163
Foreign objects.....	2		3		5						5
Gas (poisonous).....	566	17	4		587	5	1			6	593
Gunshot wounds.....	159	17	15	2	184	2				2	186
Injuries.....	214	7	82	1	304	1		1		2	306
Killed.....	79	1	5		85						85
Lost at sea.....	680	4	623	62	1,369						1,369
Machinery.....	10		4		14						14
Missing in action.....	52	2			54						54
Motorcycle.....	107		3		110						110
Murder.....	41	1	5	1	48						48
Poisoning.....	42	1	13		56						56
Railroad train (steam and electric).....	608	5	35	2	650	7				7	657
Shell shock.....	16				16						16
Shot.....	237	4	16		257						257
Strangulation.....	6		5		11						11
Suicide.....	552	20	60	1	633						633
Wagon (animal drawn).....	19				19						19
DISEASES.											
Disease.....	400	3	7	4	414	1				1	415
Abscess.....	145	3	33		181						181
Alcoholism.....	45		3		48			1		1	49
Anthrax.....	15		2		17						17
Apoplexy, cerebral hemorrhage.....	96		13		109	1		1		2	111
Apoplexy, pulmonary.....	16		1		17						17
Appendicitis.....	357	5	51		413						413
Asthma.....	11				11	1				1	12
Bladder, diseases of.....	11	2	1		11	1				1	15
Bones, diseases of (other than tuberculosis).....	22	1	3		26						26
Bright's disease.....	278	7	41		326	12	1	2		15	341
Bronchitis.....	67	1	2		70						70
Cancer and other tumors.....	105	1	20		126	9		1		10	136
Circulatory system, other diseases of.....	129	4	23		156	8		1		9	165
Diabetes.....	119	1	12	3	135	12	1	1		11	149
Digestive system, other diseases of (except cancer and tuberculosis).....	210	4	29		243	1				1	244
Diphtheria.....	140	1	42		183						183
Ears, diseases of.....	66	1	6		73	1				1	74
Endocarditis.....	72		14	1	87	2		1		3	90
Epilepsy.....	26		4		30	1				1	31
Eyes, diseases of.....	3				3	17		1		18	21
Gangrene.....	12		1		13	1				1	14
Genito-urinary system, other diseases of.....	6				6						6
Gonococcus infection.....	3		1		4						4
Heart, diseases of.....	406	12	68		486	26	2	2		30	516
Hernia.....	24		4		28	3		1		4	32

TABLE 22.—*Causes of death or disability correlated with military and naval organizations of the insured—Continued.*

Cause.	Death.					Disability.					Total death and disability.
	Army and Army Nurse Corps.	Marine Corps.	Navy and Navy Nurse Corps.	Coast Guard.	Total deaths.	Army and Army Nurse Corps.	Marine Corps.	Navy and Navy Nurse Corps.	Coast Guard.	Total disability.	
DISEASES—continued											
Influenza and pneumonia.....	15,087	246	1,834	3	17,200	1	1		2	17,202	
Influenza.....	795	15	435	1	1,246					1,246	
Joints, diseases of.....	3		4		7	2		1		10	
Kidney, other diseases of.....	51		3		54	1	1		3	56	
Liver, diseases of.....	46		11		57			1		57	
Locomotor ataxia.....	2				2					2	
Malaria.....	14	3	2		19					19	
Malformations.....	6				6	1	1		2	8	
Measles.....	91		13	1	105	2			2	107	
Measles and pneumonia.....	1,061		43	1	1,105					1,105	
Meningitis.....	1,985	39	322		2,346	2	5		7	2,353	
Mental alienation.....	64	1	11		76	22	2		24	100	
Nervous system, other diseases of.....	51	1	3		55	7			7	62	
Neuritis and neuralgia.....	3				3	1			1	4	
Nose, diseases of.....	3				3					3	
Paralysis.....	28		3	1	32	4			4	36	
Pericarditis.....	32	1	4		37	1			1	38	
Peritonitis.....	167	2	15		184	1			1	185	
Pleurisy.....	82	6	114		202	2			2	204	
Pneumonia and empyema.....	25,188	264	1,740	31	27,223	9	2		11	27,234	
Pott's disease.....	1				1					1	
Purulent infection (septicæmia).....	264	4	28	1	297	1			1	298	
Respiratory system, other diseases of.....	47		4		51	2			2	53	
Rheumatism.....	26		3		29	3	1		4	33	
Scarlet fever.....	201	2	16		219					219	
Skin, diseases of.....	33		9	1	43					43	
Smallpox.....	6	1	3		10					10	
Spleen, diseases of.....	2				2	1			1	3	
Stomach, diseases of (except cancer).....	42		9		51	1			1	52	
Syphilis.....	47		12		59	8			8	67	
Tuberculosis, meningitis.....	70		2		72					72	
Tuberculosis, lungs.....	1,019	14	120		1,153	266	37	1	244	1,397	
Tuberculosis, all other (except Pott's disease).....	181	2	20	1	204	8			8	212	
Typhoid fever.....	201	2	5		208	1			1	209	
Typhus fever.....	2				2					2	
Miscellaneous diseases.....	366	11	105	2	484	8	1		9	493	
Total.....	95,009	2,629	6,721	126	104,485	486	9	69	1	565	105,050

The want of exact figures as to the number of exposures prohibits definite conclusions as to rates. However, diagram 37, making the traumatism and diseases the basis of separation, emphasizes the predominance of the former in the Marine Corps and the predominance of the latter in the Navy.

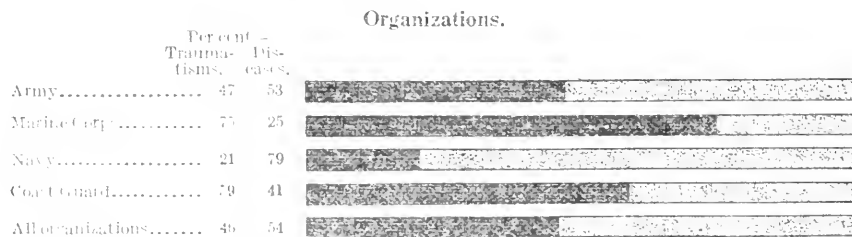


Diagram 37.—Claims awarded on contract and automatic insurance of members of the Naval and Military establishments. The proportions of traumatism and diseases as causes of death or disability is represented for each organization.

## IX. RANK OF THE INSURED.

The next study is that of the various ranks of those insured who met death or became disabled in the service. The rank is considered at the time of the death or occurrence of the disability. Table 23 presents the total number of persons in each rank insured in the Army, Marine Corps, Coast Guard and Navy. The group of privates in the Army is very much the largest. Diagram 38 brings out more strikingly the size of this group. The numerical preponderance shown by the "private" class is quite natural in view of the large number of privates exposed compared with the extent of exposure of members included in the other ranks. Diagram 39 presents a similar comparison in the Navy. In this diagram the rank corresponding to that of private in the Army, the seaman, shows up as having the largest number of deaths and disabilities. It will be noticed that in proportion as the rank becomes higher the number of deaths and disabilities becomes fewer.

## CONTRACT AND AUTOMATIC INSURANCE—DEATH AND DISABILITY CASES.

TABLE 23.—Rank of the insured in organizations of the Military and Naval Establishments.

Rank.	Army, including Army Nurse Corps.			Marine Corps.			Coast Guard.		
	Death.	Disa- bility.	Total.	Death.	Disa- bility.	Total.	Death.	Disa- bility.	Total.
Private.....	77,429	385	77,814	1,950	6	1,956	96	1	97
Corporal.....	7,769	31	7,803	346	1	347	25		25
Sergeant.....	5,087	48	5,135	225	1	226	2		2
Cadet.....	78		78						
Second lieutenant.....	1,658	4	1,662	51		51			
First lieutenant.....	1,680	5	1,685	22		22	2		2
Captain.....	611	4	615	21	1	22	1		1
Major.....	137	1	138	10		10			
Lieutenant colonel.....	49	2	51						
Colonel.....	54		54	1		1			
General.....	3		3	1		1			
Rank not specified.....	451	3	457	2		2			
Total.....	95,009	486	95,495	2,629	9	2,638	126	1	127

Rank.	Navy, including Navy Nurse Corps.		
	Death.	Disa- bility.	Total.
Seaman.....	4,457	38	4,495
Petty officer.....	1,830	28	1,858
Warrant officer.....	60	1	61
Cadet.....			
Ensign.....	180	2	182
Lieutenant (junior grade).....	84		84
Lieutenant.....	38		38
Lieutenant commander.....	31		31
Commander.....	8		8
Commodore or captain.....	10		10
Admiral.....	1		1
Rank not specified.....	22		22
Total.....	6,721	69	6,790

TABLE 23.—Rank of the insured in organizations of the Military and Naval Establishments—Continued.

Rank.	Army, including Army Nurse Corps.	Marine Corps.	Navy, including Navy Nurse Corps.	Coast Guard.	Total.
Private or seaman.....	77,814	1,956	4,495	97	84,362
Corporal or petty officer.....	7,803	347	1,858	25	10,033
Sergeant or warrant officer.....	5,129	226	61	2	5,418
Cadet.....	78				78
Second lieutenant or ensign.....	1,662	51	182		1,895
First lieutenant or lieutenant (junior grade).....	1,685	22	84	2	1,793
Captain or lieutenant.....	615	22	35	1	676
Major or lieutenant commander.....	138	10	31		179
Lieutenant colonel or commander.....	51		8		59
Colonel, commodore, or captain.....	51	1	10		65
General or admiral.....	3	1	1		5
Rank not specified.....	457	2	22		481
Total.....	95,495	2,638	6,790	127	105,050

## Army—Rank.

	Per cent of total.	
Private.....	81.49	
Corporal.....	8.18	
Sergeant.....	5.38	
First lieutenant.....	1.76	
Second lieutenant.....	1.74	
Captain.....	.64	
Major.....	.14	
Cadet.....	.08	
Higher ranks.....	.11	
Rank not recorded....	.48	

DIAGRAM 38.—Contract and automatic insurance claims awarded for death and disability separated according to ranks of the insured members of the Army establishment.

A combination of the results of the two previous diagrams gives material for diagram 40, where ranks of the same grade in all organizations have been combined.

Tables 23 to 31, inclusive, present in detail the mortality and disability experiences by the causes for each rank of the four principal organizations.



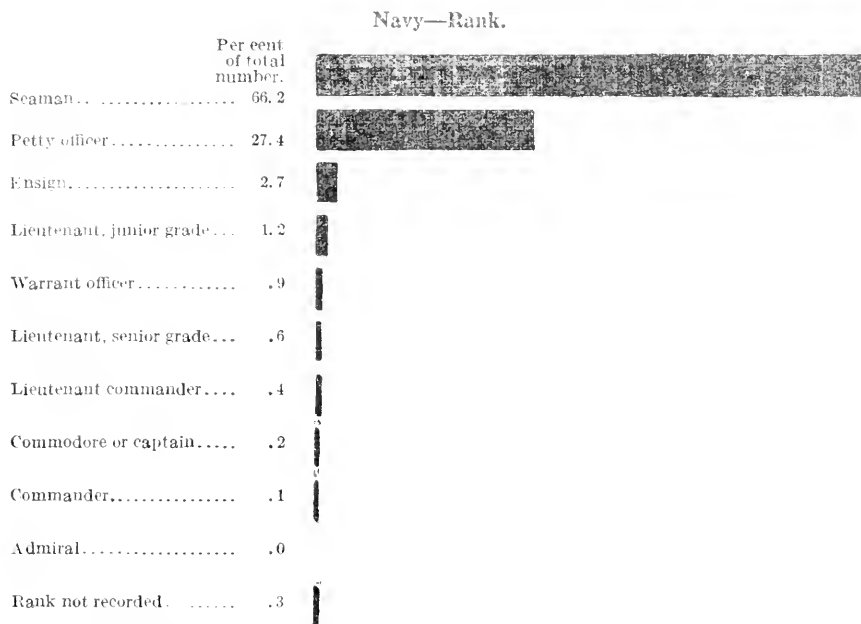


DIAGRAM 39.—Contract and automatic insurance claims awarded for death and disability separated according to rank of insured members of the Navy establishments.

Rank in All Organizations.

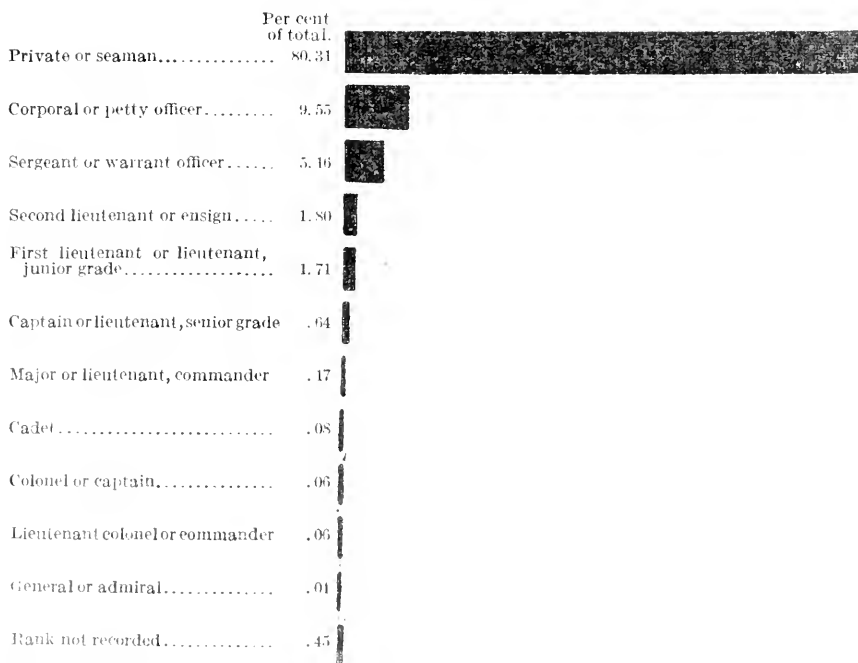


DIAGRAM 40.—The total number of awarded claims under contract and automatic insurance divided by rank of the insured at the time of the death or of the disability.



Disease.	334	14	14	14	1	1	1	1	1	16	400
Abscess.	115	10	6	6	1	6	5	5	5	2	145
Alcoholism.	38	3	2	2					1		45
Anthrax.	13	1									15
Apoplexy, cerebral hemorrhage.	69	3			3	5	4	4	1	1	95
Apoplexy, pulmonary.	12	1	3								16
Appendicitis.	291	20	21		9	7	3	1	1	5	357
Asthma.	10				1						11
Bladder, diseases of.	8		2						1		11
Bones, diseases of (other than tuberculosis).	18	2			5	1	1	1			22
Bright's disease.	212	22	21		1	1	4	3	1	5	278
Bronchitis.	58	4	3		1	1					67
Cancer and other tumors.	69	10	9		5	1	0	2	1	2	108
Circulatory system, other diseases of.	100	4	15		1	1	3	3	1	1	129
Diabetes.	104	6	3		1	1	1	2		1	119
Digestive system, other diseases of (except cancer and tuberculosis).	174	15	11		3	1	2	1		3	210
Diphtheria.	119	11	6		3	1	1				140
Ears, diseases of.	56	4	2		1	2			1		66
Endocarditis.	60	7			1		2			2	72
Epilepsy.	24	1				1					26
Eyes, diseases of.	3										3
Gangrene.	8	1	2								12
Genit-urinary system, other diseases of.	4				1		1				6
Gonorrheic infection.	3										3
Heart, diseases of.	369				2	11	7	3		1	3
Hernia.	22	28	35								24
Influenza and pneumonia.	13,306	580	573	10	172	218	83	11	2	115	15,087
Joint, diseases of.	670	47	38		10	9	6	5	1	9	795
Kidney, other diseases of.	39	5	4			2	1				3
Liver, diseases of.	30	5	4		2		1	1	1	2	51
Locomotor ataxia.	2										46
Malaria.	13		1				13				2
Malignancies.	5	1									14
Measles.	83	3									6
Measles and pneumonia.	1,010	24	11		2	2	2			5	91
Meningitis.	1,706	105	81		12	33	19	1	2	9	1,981
Mental alienation.	47	5	5		2	3	1			27	1,985
Nervous system (other diseases of).	43	3	2		1	1	1			1	64
Neuritis and neuralgia.	2	1									51
Nose, diseases of.	3										3
Paralysis.	19		3			3		2			3
Pericarditis.	27	3				1			1	1	28
Pertussis.	136	15	9		3		3				32
Pleurisy.	69	5	3			2				1	107
Pneumonia and empyema.	22,159	1,234	1,081	8	198	209	108	26	6	15	25,188
Port's disease.	1										1
Purulent infection—septicæmia.	218	19	10		4	7	1	1		4	264
Respiratory system (other diseases of).	37	2	4		1	2	2			1	47
Rheumatism.	22	2	1		1	1					26



### DISEASES.

DISEASES.									
Disease.	1	1	1	1	1	1	1	1	1
Apoplexy, cerebral hemorrhage.	1	1	1	1	1	1	1	1	1
Asthma.	1	1	1	1	1	1	1	1	1
Bladder, diseases of.	1	1	1	1	1	1	1	1	1
Bright's disease.	6	1	4	1	1	1	1	1	1
Cancer and other tumors.	7	1	2	1	1	1	1	1	1
Circulatory system, other diseases of.	5	1	1	1	1	1	1	1	1
Diabetes.	9	1	2	1	1	1	1	1	1
Digestive system, other diseases of (except cancer and tuberculosis).	1	1	1	1	1	1	1	1	1
Ears, diseases of.	1	1	1	1	1	1	1	1	1
Endocarditis.	1	1	1	1	1	1	1	1	1
Epilepsy.	1	1	1	1	1	1	1	1	1
Eyes, diseases of.	14	1	2	1	1	1	1	1	1
Gangrene.	1	1	1	1	1	1	1	1	1
Heart, diseases of.	20	3	3	1	1	1	1	1	1
Hernia.	3	1	1	1	1	1	1	1	1
Influenza and pneumonia.	1	1	1	1	1	1	1	1	1
Joint's, diseases of.	1	1	1	1	1	1	1	1	1
Kidney, other diseases of.	1	1	1	1	1	1	1	1	1
Malformations.	1	1	1	1	1	1	1	1	1
Measles.	2	1	1	1	1	1	1	1	1
Meningitis.	2	1	1	1	1	1	1	1	1
Mental affection.	20	1	1	1	1	1	1	1	1
Nervous system (other diseases of).	7	1	1	1	1	1	1	1	1
Neuritis and neuralgia.	1	1	1	1	1	1	1	1	1
Paralysis.	1	1	1	1	1	1	1	1	1
Pericarditis.	1	1	1	1	1	1	1	1	1
Peritonitis.	1	1	1	1	1	1	1	1	1
Phoritis.	1	1	1	1	1	1	1	1	1
Pleurisy.	1	1	1	1	1	1	1	1	1
Pneumonia.	9	1	1	1	1	1	1	1	1
Purulent infection—septicæmia.	1	1	1	1	1	1	1	1	1
Respiratory system (other diseases of).	2	1	1	1	1	1	1	1	1
Rheumatism.	2	1	1	1	1	1	1	1	1
Spleen, diseases of.	1	1	1	1	1	1	1	1	1
Stomach, diseases of (except cancer).	1	1	1	1	1	1	1	1	1
Syphilis.	6	1	1	1	1	1	1	1	1
Tuberculosis, lungs.	170	12	20	1	1	1	1	1	1
Tubercle is, all other except Pott's disease.	8	1	1	1	1	1	1	1	1
Typhoid fever.	1	1	1	1	1	1	1	1	1
Miscellaneous diseases.	7	1	1	1	1	1	1	1	1
Total.	385	34	48	4	5	4	4	2	3

## CONTRACT AND AUTOMATIC INSURANCE—DEATH CASES.

TABLE 26.—Disease and traumatism causes of death correlated with ranks of the insured in the Marine Corps.

Cause.	Private.	Corporal.	Sergeant.	Cadet.	Second lieutenant.	First lieutenant.	Captain.	Major.	Lieutenant colonel.	Colonel.	General.	No rank specified.	Total for all causes.
<b>Disease or injury.</b>	1												1
<b>TRAUMATISMS.</b>													
Accidents.	3												3
Action, killed or wounded in.	1,352	275	159		35	15	13	2					1,829
Airplane.	4		4		6	1							15
Automobile and trol.	2				1		1						4
Chemicals.	1												1
Drownings.	1												1
Explosion.	1												1
Fall of objects.	1												1
Fall of persons.	13	3	1										17
Gas (poisonous).	1	4	1										6
Gun-shot wounds.	11	4	1		1								17
Injuries.	5		1										6
Killed.	1												1
Lost at sea.	3					1							4
Missing in action.	2												2
Murder.		1											1
Poisoning.	1												1
Railroad train (steam and electric).	2	1	1				1						5
Shot.	3	1											4
Suicide.	16	1	1				1	1					20
<b>DISEASES.</b>													
Disease.	3,043	1											3,044
Alcohol.	4	1											5
Appendicitis.							1						1
Bladder, diseases of.													
Bones, diseases of (other than tuberculosis).		2											2
Bright's disease.	1												1
Brucella disease.	15	2											17
Bronchitis.	1												1
Cancer and other tumors.	1												1
Circulatory system, other diseases of.	4												4
Diabetes.	1												1
Digestive system, other diseases of (except cancer and tuberculosis).													
Diphtheria.	3		1										4
Ears, diseases of.	1												1
Heart, diseases of.	8	1	3					1					12



## CONTRACT AND AUTOMATIC INSURANCE—DEATH CASES.

TABLE 28. — *Disease and traumatic causes of death correlated with ranks of the insured in the Navy, including Navy Vessel Corps.*

Cause.	Seaman.	Petty officer.	Warrant officer.	Ensign.	Lieutenant (junior grade.)	Lieutenant commander.	Com-mander.	Com-mo-dore or captain.	Admiral.	Norfolk detached.	Total for all ranks.
<b>Disease or injury.</b>	<b>4</b>	<b>2</b>									<b>6</b>
<b>TRAUMATISMS.</b>											
Accident at sea.....	18	9	2	1							32
Action, killed or wounded in.....	10	13		2	1	2				1	31
Airplane.....	4	50	1	38	2						95
Am-munition (bombs, grenades, explosives, etc.).....	2	4		2							8
Animals, injured by.....	1										1
Asphyxiated.....	4	1									5
Automobile and truck.....	18	11			1	1		1			32
Chemicals.....	2	2									4
Confag-rations.....	5	5			1	1					13
Cold, excessive.....	2										2
Drowning.....	132	52	1	3	1	2					191
Explosion.....	38	23		1	1	1	3				67
Fall of objects.....	11	1									13
Fall of persons.....	23	13	3	1	1						41
Foreign objects.....	2										2
Gas (poisonous).....	2	2									4
Gun-shot wounds.....	9	3		1	2	1					15
Injuries.....	52	26	2	1	1	1					83
Killed.....	1	2									3
Lost at sea.....	327	226	11	23	17	3	2		1		675
Machine.....	3	3									6
Motorcycle.....	3	3									6
Murder.....	2	2									4
Poisoning.....	4	2			1	1					8
Railroad train (steam and electric).....	20	15		1							36
Shot.....	8	5		1	2						16
Strangulation.....	35	16	2	2	2	1				2	60
Suicide.....											
<b>DISEASES.</b>											
Disease.....	4	3									7
Alcoholism.....	19	13								1	33
Alcoholism.....	2	1									3
Anthrax.....	2										2
Apoplexy, cerebral hemorrhage.....	3	7	1	1	1						13
Apoplexy, pulmonary.....			1								1





## CONTRACT AND AUTOMATIC INSURANCE—DISABILITY CASES.

TABLE 29. — *Disease and traumatism causes of disability correlated with ranks of the insured in the Navy, including Navy Nurse Corps.*

Cause.	Seaman.	Petty officer.	Warrant officer.	Ensign.	Lieutenant (junior grade).	Lieutenant.	Lieutenant commander.	Commodore or captain.	Admiral.	No rank specified.	Total for all causes.
<b>TRAUMATISMS.</b>											
Accidents.....	1										1
Airplane.....		1									1
Balloon.....		1									1
Fall of objects.....	1										1
Injuries.....		1									1
<b>DISEASES.</b>											
Alcoholism.....	1										1
Apoplexy, cerebral hemorrhage.....											1
Bright's disease.....	1										1
Cancer and other tumors.....		1									1
Circulatory system, other diseases of.....		1									1
Diabetes.....		1									1
Endocarditis.....											1
Eyes, diseases of.....											1
Heart, diseases of.....		1									1
Uterina.....											1
Influenza and pneumonia.....											1
Joints, diseases of.....											1
Kidneys, other diseases of.....											1
Malformations.....											1
Meningitis.....		4									4
Mental alienation.....		1									1
Pneumonia and empyema.....		2									2
Rheumatism.....		1									1
Tuberculosis, lungs.....		18	1	1							20
Miscellaneous diseases.....											37
Total.....	35	28	1	2							69

TABLE 30.—*Disease and traumatism causes of death correlated with ranks of the insured in the Coast Guard.*

Cause.	Private.	Corporal.	Ser-geant.	Cadet.	Second lieutenant.	First lieutenant.	Captain.	Major.	Lieutenant-colonel.	Colonel.	General.	No rank specified.	Total for all causes.
<b>TRAUMATISMS.</b>													
Automobile and truck.	1	2											1
Drowning.	3												5
Gunshot wounds.	2	1											2
Injuries.	1												1
Lost at sea.	42	16	1		2	1							62
Murder.	1												1
Railroad train (steam and electric).	1	1											2
Suicide.	1												1
<b>DISEASES.</b>													
Disease.	4												4
Diabetes.	3												3
Endocarditis.	1												1
Influenza and pneumonia.	3												3
Influenza.	1												1
Measles.	1												1
Measles and pneumonia.	1												1
Paralysis.	1												1
Pneumonia and empyema.	1												1
Purulent infection—septicaemia.	26	5											31
Skin diseases of.	1												1
Tuberculosis lungs.	1												1
Miscellaneous diseases.	1		1										2
Total for all ranks.	96	25	2			2	1						126

CONTRACT AND AUTOMATIC INSURANCE—DISABILITY CASES.

TABLE 31.—*Disease and traumatism causes of disability correlated with ranks of the insured in the Coast Guard.*

Cause.	Private.	Corporal.	Ser-geant.	Cadet.	Second lieutenant.	First lieutenant.	Captain.	Major.	Lieutenant-colonel.	Colonel.	General.	No rank specified.	Total for all causes.
<b>DISEASES.</b>													
Tuberculosis lungs.	1												1
Total.	1												1

The Army and Navy, with their respective ranks, are selected and made the subjects of the traumatism and disease cause studies in diagrams 41 and 42. Here the higher ranks mean very little, owing to the extremely limited size of the groups. It so happens that the three

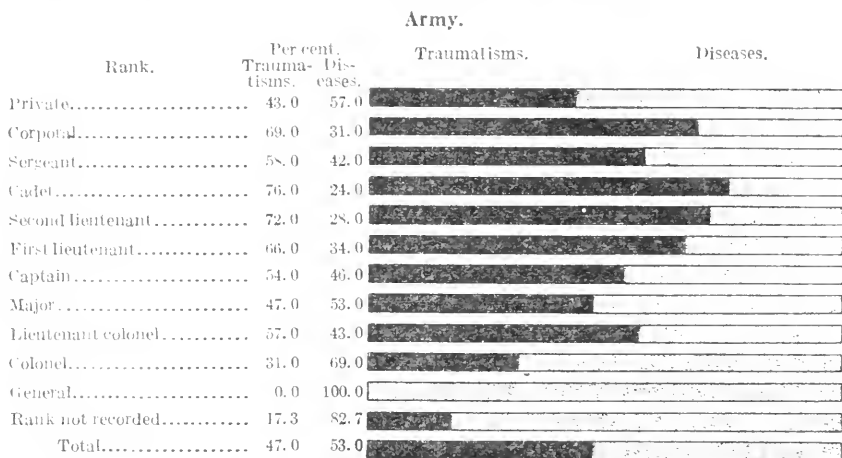


DIAGRAM 41.—Claims awarded on contract and automatic insurance of members of the Army Establishment. The proportion of traumatisms and diseases as causes of death or disability is represented for each rank.

generals of the Army and the one of the Marine Corps who died all died of diseases, and consequently the representation in diagram 41 shows a 100 per cent disease mortality for the rank of general. On the contrary, the one admiral to die is classified under traumatisms, and

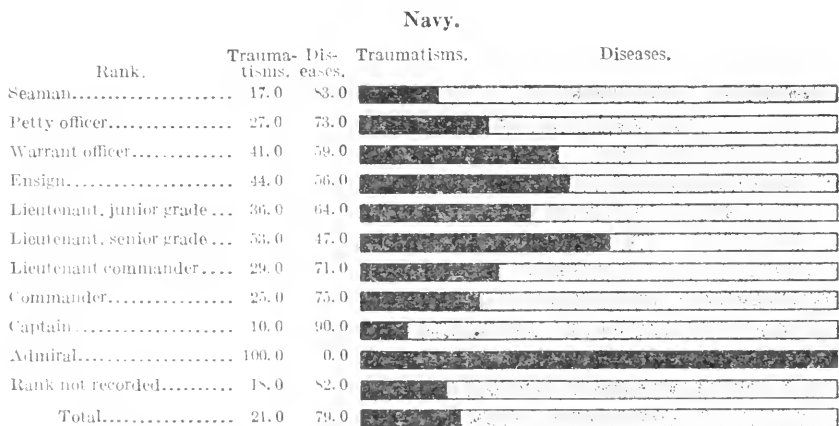


DIAGRAM 42.—Claims awarded on contract and automatic insurance of members of the Navy Establishment. The proportion of traumatisms and diseases as causes of death or disability is represented for each rank.

hence the representation in diagram 42 for the rank of admiral is the reversal of that for the corresponding rank in the Army. Loose reasoning might result in the conclusion that the rank of admiral was the most hazardous of all ranks while that of general was the least so.

The study of the foregoing group of tables reveals a striking excess percentage of suicides among commissioned officers. Of the 633 suicides in all the ranks 78, or 12 per cent, were among officers. However, the mortality of this class constituted only 5 per cent of the total number of deaths. Of the 5,209 deaths among the officers 78, or 1.5 per cent, were suicide, while of the 99,276 deaths among privates and noncommissioned officers, 555, or only 0.6 per cent, were suicide.

#### X. COUNTRY OF DEATH OR DISABILITY.

Tables 32, 33 and 34 give the mortality and disability experience notated as to the country in which deaths and disabilities occurred. Comparison of the above two tables will show that about 58 per cent

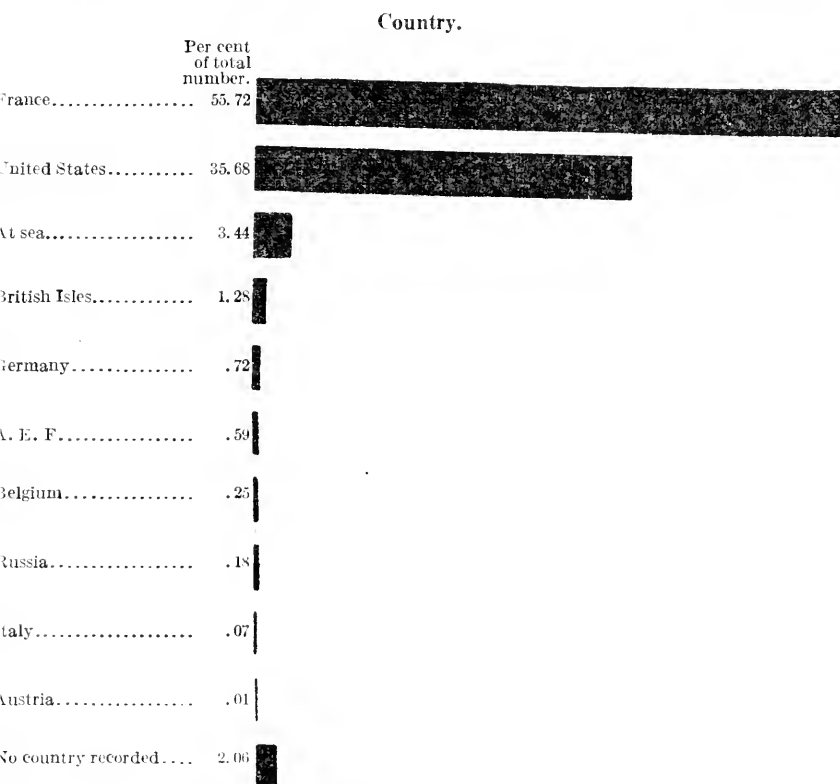


DIAGRAM 43.—The country in which the death or disability of the insured occurred; the total number of contract and automatic insurance claims awarded is taken.

of the deaths covered by contract insurance occurred in France, while about three-fourths of the deaths covered by automatic insurance occurred in the United States. Table 34 is the summary of the previous two tables and by means of it the deaths or the disabilities occurring in any country are easily obtained. Diagram 43 makes comparison of the total experience in all countries.

## CONTRACT INSURANCE—DEATH AND DISABILITY CASES.

TABLE 32. —Country in which death or disability occurred.

Country.	Death.			Disability.			Total.		
	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.
United States and possessions.....	33, 185	\$1,767,722.50	\$307,305,217.00	297	\$12,908.80	\$2,245,024.00	33, 752	\$1,780,431.30	\$309,640,241.00
France.....	58, 158	3,082,611.87	536,111,680.00	107	5,330.34	927,016.00	58, 265	3,087,972.21	537,038,696.00
Al sea.....	3, 330	165,532.83	28,788,318.00	13	523.25	91,000.00	3, 343	166,056.08	28,879,318.00
British Isles.....	1, 235	71,367.80	12,411,807.00	1	57.50	10,000.00	1, 336	71,425.30	12,421,807.00
Northern Russia and Siberia.....	189	10,361.50	1,802,000.00				189	10,361.50	1,802,000.00
A. E. F. (not otherwise specified).....	605	31,993.65	5,564,165.00	2	115.00	20,000.00	607	32,108.65	5,584,165.00
Italy.....	77	4,134.25	719,000.00				77	4,134.25	719,000.00
Belgium.....	264	14,331.88	2,492,501.00	2	115.00	20,000.00	266	14,446.88	2,512,501.00
Germany.....	552	10,477.26	7,030,523.00				552	10,477.26	7,030,523.00
Austria.....	10	517.50	90,000.00	1	57.50	10,000.00	11	575.00	100,000.00
No country recorded.....	1, 120	75,671.01	13,160,179.00	52	2,541.50	442,000.00	1, 472	78,212.54	13,602,179.00
Total.....	99, 625	5, 264, 552.47	915, 574, 340.00	445	21, 648.98	3, 765, 040.00	100, 070	5, 286, 201.45	919, 339, 380.00

## AUTOMATIC INSURANCE—DEATH AND DISABILITY CASES.

TABLE 33. —Country in which death or disability occurred.

Country.	Death.			Disability.			Total.		
	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.
United States and possessions.....	3, 642	\$91,050.00	\$16,330,000.00	92	\$2,300.00	\$14,000.00	3, 734	\$93,350.00	\$16,344,000.00
France.....	262	6,550.00	1,173,000.00	2	50.00	9,000.00	264	6,600.00	1,182,000.00
Al sea.....	272	6,890.00	1,224,000.00	2	50.00	9,000.00	274	6,940.00	1,233,000.00
British Isles.....	9	225.00	40,500.00				9	225.00	40,500.00
A. E. F. (not otherwise specified).....	8	200.00	36,000.00				8	200.00	36,000.00
Italy.....	1	25.00	4,500.00	1	25.00	4,500.00	2	50.00	9,000.00
Germany.....	1	25.00	4,500.00				1	25.00	4,500.00
Austria.....	2	50.00	9,000.00				2	50.00	9,000.00
No country recorded.....	663	16,575.00	2,983,500.00	24	600.00	108,000.00	687	17,175.00	3,091,500.00
Total.....	4, 800	121,500.00	21,870,000.00	120	3,000.00	540,000.00	4, 980	124,500.00	22,410,000.00

## CONTRACT AND AUTOMATIC INSURANCE—DEATH AND DISABILITY CASES.

TABLE 34. *Country in which death or disability occurred.*

Country.	Death.			Disability.			Total.		
	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.
United States and possessions.....	37, 127	\$1, 878, 572.50	\$323, 784, 217.00	359	\$15, 208.89	\$2, 659, 021.00	37, 486	\$1, 873, 784.39	\$326, 413, 211.00
France.....	58, 420	3, 089, 191.87	537, 290, 630.00	109	5, 380.31	936, 016.00	58, 529	3, 094, 572.21	538, 226, 646.00
At sea.....	3, 602	172, 332.83	30, 012, 318.00	15	573.25	100, 000.00	3, 617	172, 906.08	30, 112, 318.00
British Isles.....	1, 341	71, 592.89	12, 452, 307.00	1	57.50	10, 000.00	1, 345	71, 650.39	12, 462, 307.00
Northern Russia and Siberia.....	189	10, 361.50	1, 802, 000.00				189	10, 361.50	1, 802, 000.00
A. F. F. (not otherwise specified).....	613	32, 133.95	5, 600, 165.00	2	115.00	20, 000.00	615	32, 308.95	5, 620, 165.00
Italy.....	78	4, 159.25	5, 723, 500.00				78	4, 159.25	5, 723, 500.00
Belgium.....	261	14, 331.88	2, 492, 501.00	2	115.00	20, 000.00	266	14, 446.88	2, 512, 501.00
Germany.....	733	40, 502.26	7, 044, 023.00	1	57.50	10, 000.00	734	40, 562.26	7, 044, 023.00
Austria.....	12	567.50	99, 000.00				13	625.00	100, 000.00
No country recorded.....	2, 083	92, 236.04	16, 143, 679.00	76	3, 141.50	550, 000.00	2, 159	95, 387.54	16, 693, 679.00
Total.....	104, 485	5, 386, 052.47	937, 444, 340.00	565	24, 648.98	4, 305, 040.00	105, 050	5, 410, 701.45	941, 749, 380.00

The group "A. E. F." in these tables carries all those cases in which no definite country was reported for the place of the death or disability, but in which the evidence at hand pointed toward the insured's having died or having been disabled while a member of the American Expeditionary Forces. This group represents the different European countries where our forces were stationed. A number of deaths from diseases, or, in event of the sinking of a transport, from drowning, occurred while the insured were in passage across the ocean. These

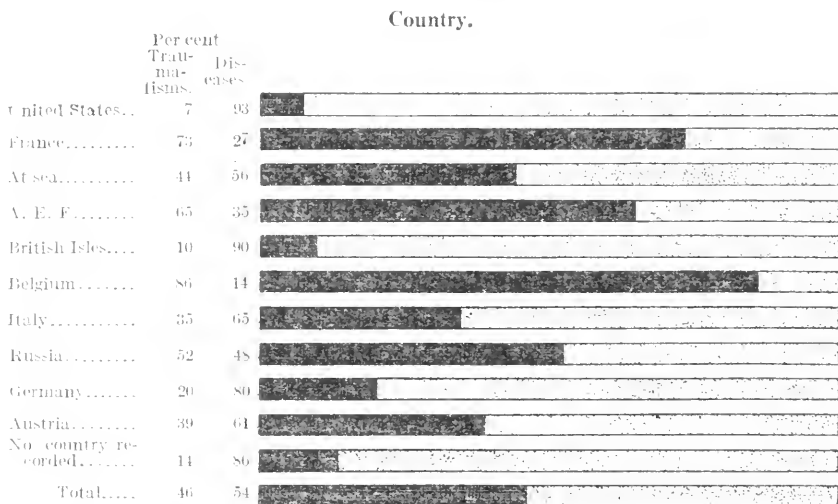


DIAGRAM 14.—Claims awarded on contract and automatic insurance of members of the Naval and Military establishments. The proportion of traumatism and diseases as causes of death or disability represented for each country in which they occurred.

cases are grouped in a class designated as "At sea." If, however, the death or disability took place while a vessel was in harbor, the country was taken to be that in which the harbor is located.

Correlation of the cause with the country of death is made in Table 35 and the correlation of the cause with the country of disability is made in Table 36. It will be noticed that for each country there appears as a traumatism "lost at sea." These cases have arisen because of drowning accidents and other traumatism occurring in the harbors of the indicated countries.



## CONTRACT AND AUTOMATIC INSURANCE—DEATH CASES.

TABLE 35.—*Disease and Traumatism causes correlated with country in which the death occurred.*

Cause.	United States and possessions.	France.	At sea.	British Isles.	North Russia and Siberia.	A. E. F. (not otherwise specified).	Italy.	Belgium.	Germany.	Austria.	No country recorded.	Total, all countries.
Disease or injury.....	44	39	3						3		30	119
TRAUMATISMS.												
Accidents.....	93	77	12	5	2	1			3		3	196
Action, killed or wounded in.....	36	40, 142	13	29	80	380	6		61	2	93	41, 062
Airplane.....	428	318	1	59			16		7		4	834
Ammunition (bombs, grenades, explosives, etc.).....	18	147	2		2	1			1	2		174
Animals, injured by.....	50	10							2		6	68
Athletics.....	8		1								3	13
Automobile and truck.....	217	136	3	5		1		1	10		5	378
Balloon.....	3											3
Bayonet.....	3	7	1									11
Chemicals.....	13	1	2									16
Conflagrations.....	17	7							1			34
Cold, excessive.....	2		1	1							2	6
Drill.....	3										1	4
Drowning.....	340	171	95	7	2				1		37	653
Explosion.....	54	124	39				2					227
Fall of objects.....	37	10	8	1							1	57
Foreign persons.....	81	46	15	4	1				2		13	162
Foreign objects.....		2	2								1	5
Gas (poisonous).....	29	548	1			5		1	3			587
Guns and wounds.....	59	97	8	3	1	2			13			184
Injuries.....	136	119	27	4					3		15	304
Killed.....	26	49			2				4	1	3	85
Lost at sea.....	31	2	1, 325	6							5	1, 369
Machinery.....	7	6	1									14
Missing in action.....		48				1			1			54
Motorcycle.....		61		1		2					4	110
Murder.....	40	14	2								6	48
Poisoning.....	28	13	1	1							4	48
Railroad train (steam and electric).....	38										3	56
Railroad train (steam and electric).....	305	298		4	3	5			5		30	650
Shall shock.....						1						16
Shot.....	129	110	3		2				7		6	257
Strangulations.....	5	3										11
Suicide.....	451	125	15	6	4		2	1	6		23	633
Wagon (animal drawn).....	9	8						1			1	19



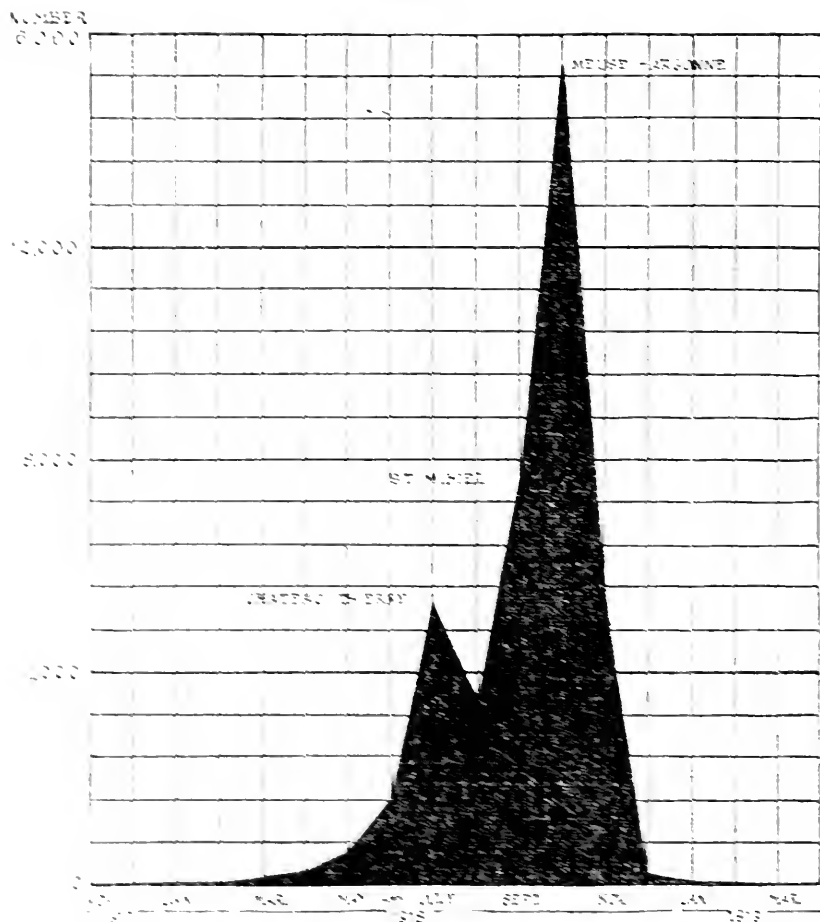
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The most instructive result of the tables comes in the traumatism and disease groupings for each country. Diagram 44 presents these comparisons. The United States shows a very small number of traumatisms, and these are largely injuries sustained incident to the transportation and to the training of men. When the records are complete for all such traumatisms occurring in this country, a mortality study similar to that usually made from industrial casualties

## France.



The number of deaths from various causes in France, 1914-1918.

A reference to one of the tables above mentioned shows that the industrial traumatisms, in spite of the fact that the men were detailed to factories, munition plants, and other industrial plants where exist certain risks connected with the production of munitions. It was in France that the largest number of the traumatisms occurred. However, in the United States, the diseases have but slight precedence over the traumatisms. This chart is a detailed step in advance, as ex-

## CONTRACT AND AUTOMATIC INSURANCE—DEATH CASES.

TABLE 37.—*Claims awarded for death occurring in United States, distributed according to selected causes of death and date of death.*

Date of death.	Killed or wounded in action.	Influenza and pneumonia.	Influenza.	Measles and pneumonia.	Pneumonia.	Meningitis.	Tuberculous meningitis.	Tuberculosis, pulmonary.	Tuberculosis, all other.
1917.									
April.....				5	16	13			
May.....	2			6	12	31		1	
June.....				2	34	17			
July.....				1	12	10	1	1	1
August.....					16	7	1	2	
September.....		1		3	13	2	1	2	
October.....				4	56	23	2	6	1
November.....			2	117	302	73	1	12	2
December.....		2	2	199	641	131	1	15	
1918.									
January.....	1	3		152	674	187	4	8	8
February.....		1	2	87	481	119	1	24	11
March.....	1			43	617	96	1	26	3
April.....		2	1	43	743	81	3	24	9
May.....	3	1		20	296	62	1	16	7
June.....	2	1		6	131	28	1	25	5
July.....	1	5		12	112	40	7	28	4
August.....	6	7		5	117	31	3	26	4
September.....	6	1,361	267	4	1,222	18		31	7
October.....	6	10,331	313	69	5,712	100	2	16	4
November.....	1	1,399	50	28	643	50		38	2
December.....	2	670	39	32	457	51	2	50	1
1919.									
January.....	2	485	32	13	452	41	2	41	4
February.....		135	20	7	195	28	1	25	2
March.....	2	80	7	2	129	21	1	56	1
April.....	1	14	1	2	15	5	2	12	2
May.....			1		5	1	1	1	
Total.....	36	14,468	737	862	13,302	1,299	15	182	78

TABLE 38.—*Claims awarded for death occurring in France, distributed according to selected causes of death and date of death.*

Date of death.	Killed or wounded in action.	Influenza and pneumonia.	Influenza.	Measles and pneumonia.	Pneumonia.	Meningitis.	Tuberculous meningitis.	Tuberculosis, pulmonary.	Tuberculosis, all other.
1917.									
July.....					2				
August.....					1				
September.....	1				2	1			
October.....					5		1	1	
November.....	13			4	17	1			
December.....	5			11	38	9		1	
1918.									
January.....	13			11	120	24		2	2
February.....	33			1	49	13			
March.....	168			1	92	21		3	6
April.....	300				47	23		1	2
May.....	649		1		59	15		1	1
June.....	1,654	2	1	4	76	15	1	6	3
July.....	5,389	4	2	1	93	12		8	2
August.....	3,421	11	8	1	110	18	3	3	6
September.....	7,619	158	22	11	1,368	45	3	6	3
October.....	15,356	948	176	97	5,128	185	2	25	9
November.....	5,469	272	60	21	1,365	153		33	3
December.....	239	75	27	31	822	118		33	11
1919.									
January.....	98	61	12	6	458	76	1	53	8
February.....	61	107	12	1	818	61	5	50	10
March.....	24	31	6		273	50	1	43	1
April.....	10	4	4		49	12		24	
May.....	2					1		1	
June.....	1				1				
Total.....	40,522	1,646	334	191	11,923	853	17	294	70

TABLE 39.—*Claims awarded for death occurring in British Isles, distributed according to selected causes and date of death.*

Date of death.	Killed or wounded in action.	Influenza and pneumonia.	Influenza.	Measles and pneumonia.	Pneumonia.	Meningitis.	Tuberculous meningitis.	Tuberculosis, pulmonary.	Tuberculosis, all other.
1917.									
September.....						1			
October.....				1					
November.....				1	1	1			
December.....				1	1				
1918.									
January.....				1	9				
February.....		1			4	2			
March.....					11	1			1
April.....					8	1			
May.....					8	3	1		
June.....				1	12	1		1	1
July.....					7	5		1	
August.....	1			1	4	4		1	1
September.....	3	23		1	105	4		1	
October.....	20	205	11	4	503	13		1	
November.....	4	40	6	5	68	5		1	
December.....		6		1	10	2			
1919.									
January.....	1	2			3	1		1	
February.....		2			5				
March.....		1			3				1
April.....					1				
Total.....	29	280	17	16	763	44	1	7	3

TABLE 40.—*Claims awarded for death occurring at sea, distributed according to selected causes of death and date of death.*

Date of death.	Killed or wounded in action.	Lost at sea.	Influenza and pneumonia.	Influenza.	Measles and pneumonia.	Pneumonia.	Meningitis.	Tuberculous meningitis.	Tuberculosis, pulmonary.	Tuberculosis, all other.
1917.										
April.....		1					1			
May.....		1				1	1			
June.....		1				2	6			
July.....		2					1			
August.....		3								
September.....		4					3		1	
October.....	1	20				1				
November.....		43				2	1		1	
December.....		58				2		1		
1918.										
January.....	1	8				12	3		1	
February.....	2	218				13	2			
March.....		24				24	2			
April.....		34				28	1			1
May.....		51				11	3			
June.....	1	101	1			7	1			1
July.....	1	24	1			10	6			
August.....	1	33				6	1		2	
September.....	2	110	68	4	3	168	2			1
October.....	3	537	404	113	2	674	16			1
November.....		4	29	3	1	36	2		1	1
December.....	1	6	14			14	4		1	1
1919.										
January.....		2	9	1		27	2		3	
February.....		2	11	1		29	3		4	
March.....		1	9			22	3		2	1
April.....		7				4				
Total.....	88	1,325	546	122	6	1,093	64	1	16	7



TABLE 41.—*Claims awarded for death occurring in Germany, distributed according to selected causes of death and date of death.*

Date of death.	Killed or wounded in action.	Influenza and pneumonia.	Influenza.	Measles and pneumonia.	Pneumonia.	Meningitis.	Tuberculous meningitis.	Tuberculosis, pulmonary.	Tuberculosis, all other.
1918.									
April.....	1								
July.....	5		1						
August.....	6								
September.....	15				1				
October.....	7	1			3				
November.....	16	1	3		2				
December.....	5	10	1		66	1		1	
1919.									
January.....	3	8		1	100	4		1	
February.....	3	26	1		227	6			
March.....		3	2	1	63	5		1	1
April.....					11	2		1	
Total.....	61	49	8	2	473	18		4	1

sive predominance of diseases has been the result of previous wars. The bar representing the separation of traumatism and diseases occurring at sea shows an excess of the latter. Further analysis of Table 35 shows that deaths which occurred at sea from disease were mainly the outcome of the influenza-pneumonia epidemic.

The foregoing group of tables makes a detailed analysis of the principal causes of death tabulated serially according to the month of death, with the separation of cases into the five places in which the largest number of deaths occurred. A summary of the battle deaths in France by the months of occurrence may be obtained from Table 38. This is the subject of diagram 45 which correlates the peaks of the battle death curve with the principal battle engagements. Though there was a gradual increase in the number of deaths each month there were comparatively few until June. In that month engagements of Belleau Wood took place. The month of July is significant, for within this month the American forces suffered comparatively heavy losses in the Allied offensive against the German salient situated between the Aisne and the Marne Rivers. In September, 1918, the American forces first took the offensive and played an important part in the reduction of the St. Mihiel salient. From the last week in September to November the most important offensive in which our forces had a part, that of the Meuse-Argonne, took place. This period exacted the heaviest death toll, making October the month of maximum battle mortality.

The influenza incidence in the United States, in France and among troops on board transports is emphasized in diagram 46. Here the month of October is again that of maximum mortality. We see thus that the maximum battle deaths and the maximum influenza-pneumonia deaths coincide in the month of October, in which lies the explanation for the exceedingly large number of deaths in that month. The diagram strikingly portrays the rapid, explosive character of growth in the influenza epidemic. The course of the mortality in the groups considered is the same but its intensity is very much greater in the United States.

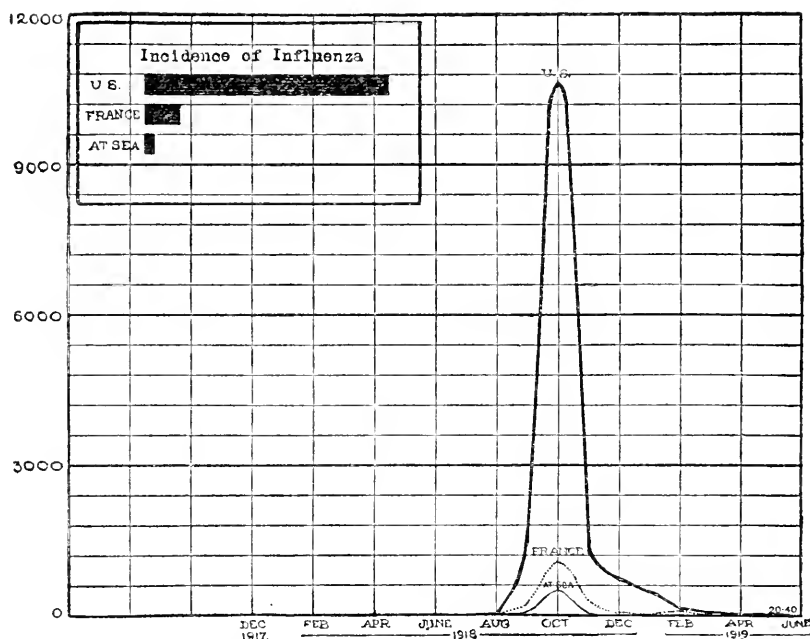


DIAGRAM 46.—Influenza, as a cause of mortality among insured while in the United States, France, or at sea, by date of death. Only claims wherein contract or automatic insurance has been awarded are considered.

The four principal organizations of the insured for whose death insurance has been awarded also affords another detailed study of the principal causes of death in the United States, in France, in the British Isles, at sea and in Germany. The following tables present this analysis.

#### CONTRACT AND AUTOMATIC INSURANCE—DEATH CASES.

TABLE 42.—*Claims awarded for death occurring in the United States, distributed according to organizations of insured and selected causes of death.*

Organization.	Killed or wounded in action.	Influenza and pneumonia.	Influenza.	Measles and pneumonia.	Pneumonia.	Meningitis.	Tuberculous meningitis.	Tuberculosis, pulmonary.	Tuberculosis, all other.
Army.....	32	12,557	339	818	11,816	1,036	43	433	65
Navy.....	2	1,659	385	43	1,261	249	2	44	12
Marine Corps.....	2	189	12	.....	107	14	.....	5	.....
Coast Guard.....	.....	3	1	1	18	.....	.....	.....	1
Total.....	36	14,408	737	862	13,202	1,299	45	482	78

TABLE 43.—*Claims awarded for death occurring in France, distributed according to organizations of insured and selected causes of death.*

Organization.	Killed or wounded in action.	Influenza and pneumonia.	Influenza.	Measles and pneumonia.	Pneumonia.	Meningitis.	Tuberculous meningitis.	Tuberculosis, pulmonary.	Tuberculosis, all other.
Army.....	38,677	1,614	325	201	10,819	825	17	288	69
Navy.....	17	19	5	.....	110	7	.....	4	1
Marine Corps.....	1,838	13	1	.....	94	21	.....	2	.....
Total.....	40,522	1,646	331	201	11,023	853	17	294	70

TABLE 44.—*Claims awarded for death occurring in British Isles, distributed according to organizations of insured and selected causes of death.*

Organization.	Killed or wounded in action.	Influenza and pneumonia.	Influenza.	Measles and pneumonia.	Pneumonia.	Meningitis.	Tuberculous meningitis.	Tuberculosis, pulmonary.	Tuberculosis, all other.
Army.....	29	258	14	16	699	38	1	6	3
Navy.....	.....	20	3	.....	62	6	.....	1	.....
Marine Corps.....	.....	2	.....	.....	2	.....	.....	.....	.....
Total.....	29	280	17	16	763	44	1	7	3

TABLE 45.—*Claims awarded for death occurring at sea, distributed according to organizations of insured and selected causes of death.*

Organization.	Killed or wounded in action.	Lost at sea.	Influenza and pneumonia.	Influenza.	Measles and pneumonia.	Pneumonia.	Meningitis.	Tuberculous meningitis.	Tuberculosis, pulmonary.	Tuberculosis, all other.
Army.....	8	672	382	88	6	798	20	1	6	7
Navy.....	5	588	134	34	.....	254	43	.....	10	.....
Marine Corps.....	.....	4	30	.....	.....	41	1	.....	.....	.....
Coast Guard.....	.....	61	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	13	1,325	546	122	6	1,093	64	1	16	7

TABLE 46.—*Claims awarded for death occurring in Germany, distributed according to organizations of insured and selected causes of death.*

Organization.	Killed or wounded in action.	Influenza and pneumonia.	Influenza.	Measles and pneumonia.	Pneumonia.	Meningitis.	Tuberculous meningitis.	Tuberculosis, pulmonary.	Tuberculosis, all other.
Army.....	59	48	8	2	456	18	.....	4	1
Navy.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Marine Corps.....	2	.....	.....	.....	17	.....	.....	.....	.....
Coast Guard.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	61	49	8	2	473	18	.....	4	1

Diagram 47 combines deaths in the Army and in the Marine Corps and considers the influenza and pneumonia deaths in the United States and France. It further emphasizes the fact that the influenza epidemic was more serious in this country than it was in France.

#### Influenza and Pneumonia—Army, Including Marine Corps.

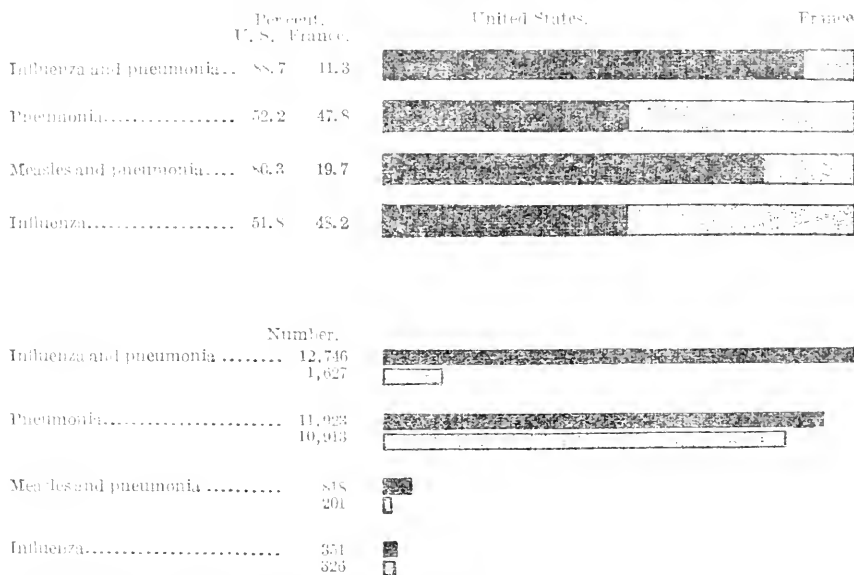


Diagram 47.—Relative and comparative incidence of influenza and pneumonia as death causes in the United States and in France among insured in the Army and the Marine Corps attached to it. Only claims wherein contract or automatic insurance has been awarded are considered.

#### XI. A STUDY OF PERMANENT AND TOTAL DISABILITIES.

The group of disability cases analyzed in the insurance study is comparatively small, due to the fact that only those who are permanently and totally disabled are entitled to receive benefits. As this class is of sufficient importance to warrant special consideration, the following paragraphs concern themselves with detailed analysis of the cases that compose it. Table 47 gives the list of the causes of these disabilities showing in each cause group all those who have died since the insurance award has been made.

## CONTRACT AND AUTOMATIC INSURANCE—DISABILITY CASES.

TABLE 47.—*Insured who are still alive or have died since date of original award, showing causes of disability.*

Cause.	Contract.			Automatic.			Total.		
	Original cases.	Since died.	Still alive.	Original cases.	Since died.	Still alive.	Original cases.	Since died.	Still alive.
TRAUMATISMS.									
Accidents.....	1	.....	1	.....	.....	.....	1	.....	1
Action, wounded in.....	69	.....	69	1	.....	1	70	.....	70
Airplane.....	2	1	1	.....	.....	.....	2	1	1
Ammunition (bombs, grenades, explosives, etc.).....	7	.....	7	.....	.....	.....	7	.....	7
Animals, injured by.....	1	.....	1	.....	.....	.....	1	.....	1
Automobile and truck.....	1	.....	1	.....	.....	.....	1	.....	1
Balloon.....	1	.....	1	.....	.....	.....	1	.....	1
Bayonet.....	.....	.....	.....	1	.....	1	1	.....	1
Explosion.....	1	.....	1	.....	.....	.....	1	.....	1
Fall of objects.....	1	.....	1	.....	.....	.....	1	.....	1
Fall of persons.....	1	.....	1	.....	.....	.....	1	.....	1
Gas (poisonous).....	6	.....	6	.....	.....	.....	6	.....	6
Gunshot wounds.....	2	.....	2	.....	.....	.....	2	.....	2
Injuries.....	2	.....	2	.....	.....	.....	2	.....	2
Railroad train (steam and electric).....	3	.....	3	4	1	3	7	1	6
DISEASES.									
Disease.....	1	1	.....	.....	.....	.....	1	1	.....
Alcoholism.....	1	.....	1	.....	.....	.....	1	.....	1
Apoplexy, cerebral hemorrhage.....	2	1	1	.....	.....	.....	2	1	1
Asthma.....	1	.....	1	.....	.....	.....	1	.....	1
Bladder, diseases of.....	1	1	.....	.....	.....	.....	1	1	.....
Bright's disease.....	14	9	5	1	1	.....	15	10	5
Cancer and other tumors.....	10	5	5	.....	.....	.....	10	5	5
Circulatory system, other diseases of.....	9	5	4	.....	.....	.....	9	5	4
Diabetes.....	12	10	2	2	2	.....	11	12	2
Digestive system (except cancer and tuberculosis).....	1	1	.....	.....	.....	.....	1	1	.....
Ears, diseases of.....	1	.....	1	.....	.....	.....	1	.....	1
Endocarditis.....	3	3	.....	.....	.....	.....	3	3	.....
Epilepsy.....	1	.....	1	.....	.....	.....	1	.....	1
Eyes, diseases of.....	16	.....	16	2	.....	2	18	.....	18
Gangrene.....	.....	.....	.....	1	.....	1	1	.....	1
Heart, diseases of.....	23	20	3	7	4	3	30	24	6
Hernia.....	4	.....	4	.....	.....	.....	4	.....	4
Influenza and pneumonia.....	1	.....	1	1	1	.....	2	1	1
Joints, diseases of.....	3	1	2	.....	.....	.....	3	1	2
Kidneys, other diseases of.....	2	2	.....	.....	.....	.....	2	2	.....
Malformations.....	2	1	1	.....	.....	.....	2	1	1
Measles.....	.....	.....	.....	2	2	.....	2	2	.....
Meningitis.....	4	.....	4	3	1	2	7	1	6
Mental alienation.....	19	15	4	5	1	4	24	16	8
Nervous system, other diseases of.....	4	2	2	3	1	2	7	3	4
Neuritis and neuralgia.....	1	1	.....	.....	.....	.....	1	1	.....
Paralysis.....	4	.....	4	.....	.....	.....	4	.....	4
Pericarditis.....	1	.....	1	.....	.....	.....	1	.....	1
Peritonitis.....	1	1	.....	.....	.....	.....	1	1	.....
Pleurisy.....	1	.....	1	1	1	.....	2	1	1
Pneumonia and empyema.....	10	6	4	1	1	.....	11	7	4
Purulent infection—septicaemia.....	1	.....	1	.....	.....	.....	1	.....	1
Respiratory system, other diseases of.....	2	2	.....	.....	.....	.....	2	2	.....
Rheumatism.....	4	2	2	.....	.....	.....	4	2	2
Spleen, diseases of.....	1	.....	1	.....	.....	.....	1	.....	1
Stomach, diseases of (except cancer).....	1	1	.....	.....	.....	.....	1	1	.....
Syphilis.....	8	2	6	.....	.....	.....	8	2	6
Tuberculosis, lungs.....	165	131	34	79	69	10	244	200	44
Tuberculosis, all other except Pott's disease.....	4	2	2	4	4	1	8	6	2
Typhoid fever.....	.....	.....	.....	1	.....	.....	1	1	.....
Miscellaneous diseases.....	8	1	7	1	.....	1	9	1	8
Total.....	445	227	218	120	90	30	565	317	248

Diagram 48 illustrates comparatively the principal causes of disability. The largest single cause is that of tuberculosis, comprising more than two-fifths of the entire list of disabilities awarded insurance.

565 Permanent Total Disability Cases.

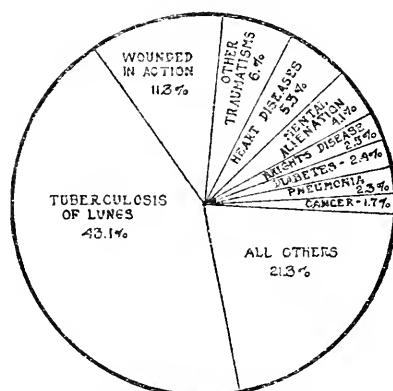


DIAGRAM 48.—The causes of permanent total disability for which contract and automatic insurance awards have been made.

Diagram 49 compares the disease groups with the injury groups.

565 Permanent and Total Diseased or Injured Disabilities.

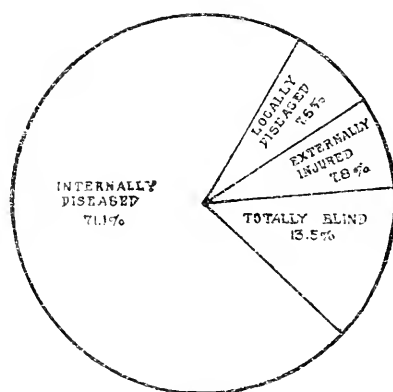


DIAGRAM 49.—The total number of permanent and total disability cases which have been awarded contract and automatic insurance, showing groups of those diseased and those injured.

The small proportion of the injuries is the noticeable feature in this diagram, and its composition is further analyzed in diagram 50.

The physical condition of the 565 insured at the time the insurance award was made is presented in Table 48. Here the various combinations of injuries and diseased conditions which arise are given.

565 Permanent Total Disabilities.

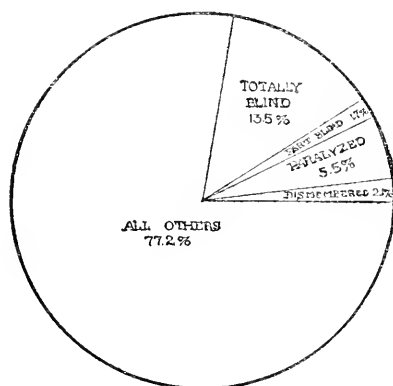


DIAGRAM 50.—The total number of permanent and total disability cases upon which contract and automatic insurance has been awarded, showing the major external injuries and local affections.

Often there is both a disease and a traumatism, which together constitute a permanent total disability. For example, a fractured leg and the dismemberment of an arm may operate to totally incapacitate the insured, whereas either one or the other alone would not permanently and totally disable him.

## CONTRACT AND AUTOMATIC INSURANCE—DISABILITY CASES.

TABLE 48.—Detailed statement showing conditions of the insured at the time of making claim, indicating those who have since died and those who are still alive.

	Contract.		Automatic.		Total.		Total.
	Since died.	Still alive.	Since died.	Still alive.	Since died.	Still alive.	
Blind in both eyes—without minor injury (73)		71		2		73	73
Blind in both eyes—with major injury or diseased condition (3):							
Since died:		1				1	1
Still alive:		1				1	1
Disembodiment of both arms		1				1	1
Blind in one eye—with major injury or diseased condition (7):							
Since died:		2				2	2
Still alive:		5				5	5
Sight impaired in one or both eyes (9):							
Without other injury or diseased condition		5				5	5
With other disease	4				4		4
Deaf in both ears (1):				1		1	1
Paralyzed (20):							
Both arms and legs	2	8		1	2	9	11
Both legs		7		1		8	8
Arm, leg, and face			1	1	1	1	2
Arm and leg		1		1		2	2
Face with minor disability		1				1	1
Spine		3	1	1	1	4	5
Disembodied (12):							
Both arms		1				1	1
Both legs		7		1		8	8
Both feet		1				1	1
One arm with minor disability		1				1	1
Finger and thumb injured				1		1	1
Otherwise injured (31):							
Joints only, lost	2	2			2	2	4
Bone diseased (local)		1				1	1
Shoulder injured with minor disability	1				1		1
Shoulder rheumatic with minor disability		1				1	1
Abdomen	1		1		2		2
Hip joint with minor disability		1				1	1
Chest	2	1			2	1	3
Back				1		1	1
Neck	2	1			2	1	3
Glands, diseased (local)	3				3		3
Ruptured	1						1
Thumb and several fingers		1				1	1
Arm and leg		2				2	2
Arm and fingers		1				1	1
Leg with minor disability		1				1	1
Injured by fall out of automobile				1		1	1
Legs and spinal cord		1				1	1
Spine injured		1				1	1
Spine fractured		2				2	2
Burned and internally diseased (3):							
Legs disembodied, with kidney disease		1				1	1
Ankylosis of joints, with tuberculosis of lungs		1				1	1
Tuberculosis, heart disease, Bright's disease, with injured leg		1				1	1
Internally diseased (307):							
Kidneys	26	6	1		30	6	36
Heart and kidneys	2	1		1	2	2	4
Heart	25	8	2	2	27	10	37
Nervous system	1	1			1	1	2
Spleen	1	2			1	2	3
Intestines	1				1		1
No location	7	24	6	6	13	30	43
Lungs	131	31	72	10	203	41	247
Brain	7	4			7	4	11
Lungs and heart	2	1			2	1	3
Cervical cancer			1		1		1
Esophageal cancer	1				1		1
Abdomen (cancer)	1	2	1		5	2	7
Face (cancer)	1				1		1
Total	227	218	90	30	317	248	565



Table 48 not only reveals the physical condition of the insured and the anatomical location affected by the disease or injury, but also makes a separation of the disabled men into those who have died as the result of their disability and those who are still alive on June 30, 1919. The principal causes of disability were grouped in Table 47 and correlated with the groupings of Table 48 for the detailed study given in Table 49. This analysis is as complete as the sources permit.

CONTRACT AND AUTOMATIC INSURANCE—DISABILITY CASES.

TABLE 49.—*Detailed statement of disabilities.*

Action, wounded in (70):	Number.
Eyes, blind in both.....	32
Eyes, blind in both—arm and shoulder injured.....	6
Eyes, blind in both—legs and thigh injured.....	4
Eyes, blind in both—hand injured.....	3
Eyes, blind in both—two fingers dismembered.....	1
Eyes, blind in both—abdomen injured.....	1
Eye, blind in one—arm injured.....	5
Eye or eyes, impaired sight.....	3
Legs, both dismembered.....	5
Legs, both paralyzed.....	2
Leg and arm injured.....	1
Arm and fingers injured.....	1
Thigh and several fingers injured.....	1
Chest injured.....	1
Heart injured.....	4
Other traumatisms (34):	
Eyes, blind in both.....	9
Eyes, blind in both—both arms dismembered.....	1
Eyes, blind in both—hand and foot injured.....	2
Legs, both paralyzed.....	2
Legs, both dismembered.....	3
Legs, both injured—spinal cord injured.....	1
Leg and arm injured.....	1
Leg and arm paralyzed.....	2
Leg injured with minor disability.....	1
Arms, both dismembered.....	1
Feet, both dismembered.....	1
Thigh injured—several fingers dismembered.....	1
Spine paralyzed.....	1
Spine injured.....	1
Spine fractured.....	2
Paralyzed, half or more.....	4
Injured by fall out of automobile.....	1
Tuberculosis (24):	
Lungs.....	24
Cancer and other tumors (10):	
Groin.....	1
Rectum.....	1
Abdomen.....	7
Face.....	1
Influenza and pneumonia (13):	
Lungs.....	3
Lungs and heart.....	3
No location specified.....	7
Bright's disease (15):	
Kidney.....	15
Diabetes (14):	
No location specified.....	14
Heart, diseases of (30):	
Heart.....	30
Mental alienation (24):	
Brain.....	24
Miscellaneous diseases (11):	
Eyes, blind in both—injured spine.....	1
Eyes, blind in both.....	16
Eyes, sight impaired in both—kidney trouble.....	4
Eyes, sight impaired in one or both.....	2
Eye, blind in one—arm and leg paralyzed.....	2
Legs, both paralyzed.....	4
Tumor, necessitating leg amputation—kidney disease.....	1
Leg, one injured—tuberculosis, heart disease, nephritis.....	1
Leg, one, arm and face paralyzed.....	2
Disease necessitating arm amputation.....	1
Arm and back paralyzed (half or more).....	1
Ears, deaf in both.....	1
Shoulder with minor disability.....	1
Shoulder and knee—rheumatism.....	1

TABLE 49.—*Detailed statement of disabilities—Continued.*

Miscellaneous diseases (111)—Continued.	Number.
Joints, ankylosis, with tuberculosis of lungs.....	1
Joints, ankylosis.....	1
Bones, diseased.....	4
Hip joint with minor disability.....	1
Spine, paralyzed.....	4
Kidneys.....	8
Kidneys and heart.....	3
Heart.....	3
Face, paralyzed with minor disability.....	1
Brain, paralyzed.....	5
Spleen.....	3
Abdomen.....	2
Intestines.....	1
Glands.....	3
Chest.....	2
Back.....	1
Neck.....	3
Paralyzed.....	1
Ruptured.....	1
Nervous system.....	2
No detail recorded.....	23
Total.....	565

Additional interest is found in the organization study presented in Table 50 for the purpose of showing those disabilities in which death resulted after discharge from the service.

#### CONTRACT AND AUTOMATIC INSURANCE—DISABILITY CASES.

TABLE 50.—*Insured who are still alive, or who have died since the date of original award, showing their organization at time of disability.*

Organization.	Contract.			Automatic.			Total.		
	Original cases.	Since died.	Still alive.	Original cases.	Since died.	Still alive.	Original cases.	Since died.	Still alive.
Adjutant General.....	1	1					1	1	
Army Nurse Corps.....	2		2				2		2
Artillery (Field).....	25	19	6	11	9	2	36	28	8
Artillery (Coast).....	11	7	4	6	3	3	17	10	7
Aviation.....	5	2	3	1	1		6	3	3
Balloon Corps.....	1		1				1		1
Cavalry.....	7	5	2	1		1	8	5	3
Chemical Service.....	1	1					1	1	
Coast Guard.....				1	1		1	1	
Depot Brigade.....	39	26	13	2	2		41	28	13
Engineer Corps.....	29	11	18	3	3		32	14	18
Infantry.....	155	55	100	58	49	9	213	104	109
Machine-Gun Battalion.....	23	18	5	7	6	1	30	24	6
Marine Corps.....	8	1	7	1		1	9	1	8
Medical Corps.....	26	18	8	6	3	3	32	21	11
Motor Transport Corps.....	5	4	1				5	4	1
Navy.....	57	30	27	12	7	5	69	37	32
Ordnance.....	5	4	1	1	1		6	5	1
Quartermaster Corps.....	17	12	5	3	1	2	20	13	7
Signal Corps.....	11	3	8	4	4		15	7	8
Tank Service.....	1	1					1	1	
All others.....	16	9	7	3		3	19	9	10
Total.....	445	227	218	120	90	30	565	317	248

A summary of the 565 permanent total disability cases segregating those who have died and those who are still alive is shown in Table 51. This table also gives the monthly payments and the amount of insurance involved in each classification.

## DEATH AND AUTOMATIC INSURANCE—DISABILITY CASES.

TABLE 51.—*Monthly payments and amount of insurance awarded in cases of permanent and total disability.*

	Contract.			Automatic.			Total		
	Num-ber.	Monthly pay-ment.	Amount of insurance.	Num-ber.	Monthly pay-ment.	Amount of insurance.	Num-ber.	Monthly pay-ment.	Amount of in-suranc e.
Original cases...	445	\$21,648.98	\$3,765,040.00	120	\$3,000.00	\$540,000.00	565	\$21,648.98	\$4,305,040.00
Since died.....	227	10,881.26	1,892,390.00	90	2,250.00	405,000.00	317	13,131.26	2,297,390.00
Still alive.....	218	10,767.72	1,872,650.00	30	750.00	135,000.00	248	11,517.72	2,007,650.00

Diagram 51 illustrates graphically that 56 per cent of the insured permanently and totally disabled have died.

## 565 Permanent Total Disability Cases.

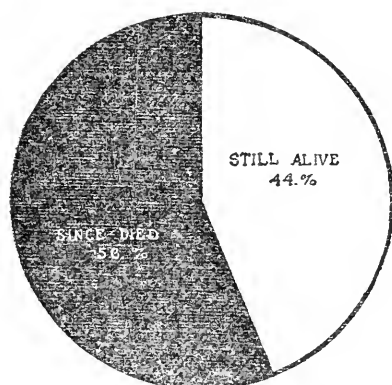


DIAGRAM 51.—The permanently and totally disabled to whom contract and automatic insurance awards have been made separated into those who have since died and those who are still alive.

Tuberculosis has been found to be the most disturbing factor in the permanent total class as well as the most fatal. In diagram 52 the relative size of the tuberculosis group to the whole is shown. In addition to this ratio, the percentage of the number suffering with tuberculosis who have remained alive is given. It is seen that the greater number have succumbed to the disease.

It has previously been mentioned that the maximum incidence of the disabilities for which insurance was awarded occurred during the winter and early spring months of 1918. This fact together with the knowledge that 44.6 per cent of all the disabilities were tuberculous, indicates that inactive tuberculosis or tuberculous tendencies developed among the unseasoned soldiers due to exposure during the first winter of encampment. The weather was severe and in the rush of mobilization, protection and comforts were not always provided.

## Tuberculosis Disabilities.

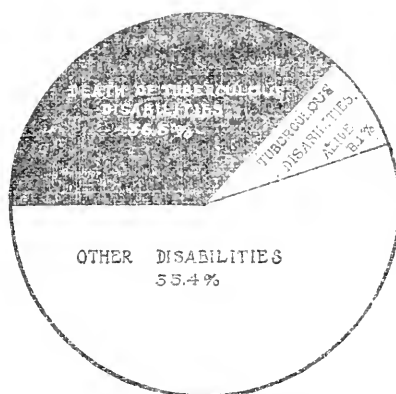


DIAGRAM 52.—Permanent total disability caused by tuberculosis. The tuberculous claimants who have received contract and automatic insurance awards are separated into those who have died and those who are still alive.

## XII. DEATHS OCCURRING IN AND OUT OF THE SERVICE.

During the time elapsing from demobilization to the closing date of this report, 832 deaths have occurred out of the service and have received insurance awards. Other persons discharged from the service have died of whom many were insured, but the insurance not having been awarded it was manifestly impossible to include them in this experience.

Deaths out of the service come under two headings, those who were receiving an insurance award for permanent and total disability at the time of death and those who were not permanently and totally disabled and consequently for whom no insurance award had been made prior to death. Table 52 summarizes the entire situation showing deaths in the service, deaths out of the service and disabled men still alive. Diagram 53 graphically presents some facts giving the percentages of deaths in the service, of deaths out of the service and of disabilities still alive in comparison to the total insurance claims awarded.

## CONTRACT AND AUTOMATIC INSURANCE—DEATH AND DISABILITY CASES.

TABLE 52.—Deaths in and out of the service.

	Died out of service.				Total died in and out of the service.	Still alive, receiving award for permanent total disability.	Total claims for insurance awarded.
	Died in the service.	Original award for permanent disability at discharge, changing later to death.	Original award for death.	Total died out of service.			
Contract.....	99,110	227	515	742	99,852	218	100,070
Automatic.....	4,860	99		99	4,959	30	4,989
Total.....	103,970	317	515	832	104,802	248	105,059

## Deaths In and Out of the Service.

Total claims awarded . . .	100.0	
Death in service . . . . .	99.0	
Death out of service . . . .	.8	
Still alive . . . . .	.2	

DIAGRAM 53.—A separation of contract and automatic insurance claims awarded for death and disability to show the number of insured dying in the service, dying out of the service, and still alive.

Many of the insured who were permanently and totally disabled had no relatives within the permitted class of beneficiaries to whom insurance might be payable in the event of their death. Their purpose in insuring themselves was protection against permanent total disability. Diagrams 54 and 55 show the disabilities who have died and that proportion of those whose beneficiaries are now receiving the insurance award.

## 832 Deaths Out of Service.

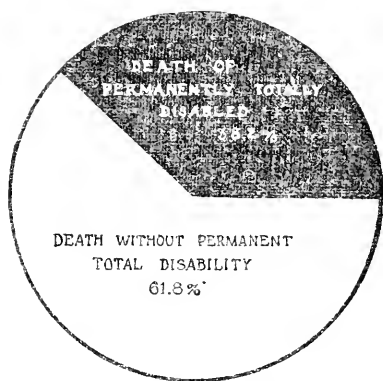


DIAGRAM 54.—Deaths out of the service for which contract and automatic insurance has been awarded, showing the insured who received the awards for permanent total disability prior to death and those who had no permanent total disability prior to death.

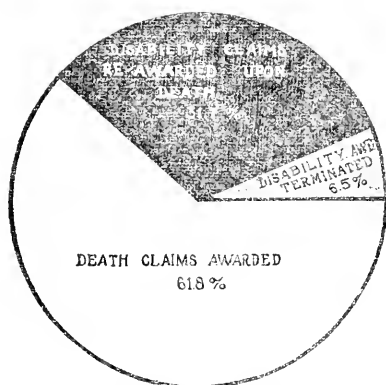


DIAGRAM 55.—Insured dying out of the service who received contract and automatic insurance awards for permanent total disability prior to death, separated into those whose beneficiaries are now receiving the awards and those who had no beneficiaries.

## XIII. CHANGES IN INSURANCE AWARDS.

An insurance award made to a disabled person continues until his death, at which time, if he had not received 240 monthly payments, the remainder of the payments are made to the designated beneficiary or beneficiaries. The few awards which of necessity are terminated receive treatment in the next section. In the event of the death of a beneficiary where more than one is receiving contract insurance benefits, the award is made to the remaining beneficiary or is redivided among remaining beneficiaries. When a single beneficiary who is receiving the insurance benefits dies the State succession laws determine those to whom the remaining benefits go. In case there is no relative in the permitted class the benefits are terminated. In automatic insurance there is but one beneficiary and any change designates a new one within the permitted class. These beneficiary changes are the only ones that occur, since the total

amount in any one case remains the same. Changes in automatic insurance are made upon the death of the beneficiary and upon the remarriage of a widow. A widow is entitled to receive automatic benefits only so long as she remains unmarried; at her remarriage the payments stop and are reopened in favor of a child, or mother or father, provided there be one. One further factor that brought about some changes in the beneficiaries for automatic insurance was change in the law. It had been possible for a time for more than one person to receive benefits, for example a wife and mother, and the monthly installment of \$25 was divided according to regulations between these beneficiaries. Later the law made this division of the insurance impossible and provided that it go to a single beneficiary. Table 53 and Diagram 56 make an analysis of the reasons which have necessitated a redivision of awards or the designation of a new beneficiary.

#### CONTRACT AND AUTOMATIC INSURANCE—DEATH AND DISABILITY CASES.

TABLE 53.—*Reasons for designation of a new beneficiary or for redivision of award.*

Reasons.	Contract.			Automatic.			Total.		
	Death.	Disability.	Total.	Death.	Disability.	Total.	Death.	Disability.	Total.
Beneficiary died.....	502	218	720	39	73	112	541	291	832
Wife remarried.....				28		28	28		28
Change of law.....				32		32	32		32
Total.....	502	218	720	99	73	172	601	291	892

#### Reasons for Changing Beneficiary.

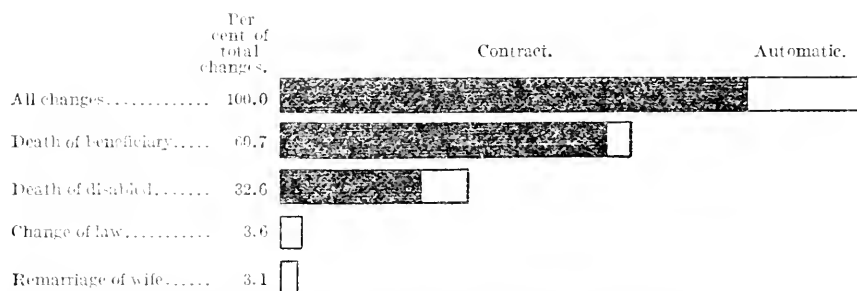


DIAGRAM 56.—Analysis of the reasons for changing beneficiary under awarded claims for death and disability showing separation into contract and automatic insurance.

Tables 54 and 55 give the duration of the award before a change was necessitated for contract and automatic insurance respectively. Redivided awards or awards made to new beneficiaries ran on an average of five months before the change.

## CONTRACT INSURANCE—DEATH AND DISABILITY CASES.

TABLE 54.—*Duration of awards (in months) before a change was necessitated.*

	Less than 1 month.	1 month.	2 months.	3 months.	4 months.	5 months.	6 months.	7 months.	8 months.
Death.....	55	66	69	69	60	48	50	24	12
Disability.....	6	26	28	24	31	11	21	24	16
Total.....	61	92	97	93	91	59	71	48	28

	9 months.	10 months.	11 months.	12 months.	13 months.	14 months.	15 months.	16 months.	Total number.
Death.....	19	12	8	4	4	1	1		502
Disability.....	10	4	7	5	2	3			218
Total.....	29	16	15	9	6	4	1		720

## AUTOMATIC INSURANCE—DEATH AND DISABILITY CASES.

TABLE 55.—*Duration of awards (in months) before a change was necessitated.*

	Less than 1 month.	1 month.	2 months.	3 months.	4 months.	5 months.	6 months.	7 months.
Death.....		5	1		4	7	7	5
Disability.....	2	2	7	6	7	11	5	3
Total.....	2	7	8	6	11	18	12	8

	8 months.	9 months.	10 months.	11 months.	12 months.	13 months.	14 months.	15 months.
Death.....	8	14	7	10	7	11	3	1
Disability.....	2	3	2	7	6	7	2	
Total.....	10	17	9	17	13	18	5	1

	16 months.	17 months.	18 months.	19 months.	20 months.	21 months.	Total number.
Death.....	1	2	1	1		1	99
Disability.....				1			73
Total.....	4	2	1	2		1	172

## XIV. TERMINATIONS OF INSURANCE AWARDS.

The death of a single beneficiary, or, in automatic insurance the remarriage of a widow, may result in the complete termination of an award. Unless there be some other person in the permitted class to receive insurance benefits the awards discontinued are not reopened. These cases, however, are not considered as permanently terminated, since at any time a relative of the insured may be located to whom benefits might accrue. It is the policy of the bureau to make every exertion to find any such persons and dispatch to them all payments due from the date of the termination. Table 56 gives the numbers and amounts of awards terminated that have not as yet been reopened.





## AUTOMATIC INSURANCE DEATH AND DEBILITY CASES

TABLE 10.—Continued from Table 10-1

Date		Amount		Amount	
		Paid		Total	
1946					
October	1	\$	1,000.00		
November					
December	1	2,000.00	3,000.00		
1948					
January	2	50.00	1,000.00	1	27.00
February	1	2,000.00	3,000.00	3	7,000.00
March	2	3,000.00	4,000.00	4	100.00
April	1	112.00	21,000.00	5	1,000.00
May	1	1,000.00	1,000.00	6	1,000.00
June	2	1,000.00	1,000.00	7	1,000.00
July	1	1,000.00	1,000.00	8	1,000.00
August	1	2,000.00	3,000.00	9	1,000.00
September	6	4,000.00	5,000.00	10	1,000.00
October	4	1,000.00	1,000.00	11	1,000.00
November	2	1,000.00	1,000.00	12	1,000.00
December	5	12,000.00	13,000.00	13	1,000.00
1949					
January	10	2,000.00	3,000.00	14	1,000.00
February	5	12,000.00	13,000.00	15	1,000.00
March	5	12,000.00	13,000.00	16	1,000.00
April	1	2,000.00	3,000.00	17	1,000.00
May	1	1,000.00	1,000.00	18	1,000.00
June	1	2,000.00	3,000.00	19	1,000.00
Total		50,000.00	57,000.00	20	1,000.00

## CONTRACT AND AUTOMATIC INSURANCE—DEATH AND DEBILITY CASES

TABLE 10-2.—Deaths and Debilities from Contract and Automatic Insurance

Date	Contract Insurance		Automatic Insurance		Total	
	No. of Cases	Amount Paid	No. of Cases	Amount Paid	No. of Cases	Amount Paid
1946						
October	1	\$2,000.00	\$3,000.00	1	\$27.00	\$3,027.00
November					2	\$70.00
December	1	2,000.00	3,000.00		1	2,000.00
1948						
January	2	50.00	1,000.00	1	27.00	1,077.00
February	1	2,000.00	3,000.00	3	7,000.00	1,000.00
March	2	3,000.00	4,000.00	1	25.00	1,000.00
April	1	112.00	21,000.00	2	55,000.00	1,000.00
May	1	1,000.00	1,000.00	3	1,000.00	1,000.00
June	2	1,000.00	1,000.00	2	1,000.00	1,000.00
July	1	1,000.00	1,000.00	3	1,000.00	1,000.00
August	1	1,000.00	1,000.00	5	211,000.00	1,000.00
September	11	122,000.00	92,000.00	4	1,000.00	1,000.00
October	24	1,011.00	296,000.00	1	23,000.00	1,000.00
November	23	1,200.00	296,000.00	1	1,000.00	1,000.00
December	22	1,012.00	2,020,000.00	2	1,000.00	2,021,000.00
1949						
January	10	1,112.00	2,000,000.00	1	1,000.00	2,001,000.00
February	15	1,125.00	3,000,000.00	3	1,000.00	3,001,000.00
March	50	2,125.00	10,000,000.00	1	1,000.00	10,001,000.00
April	49	2,111.00	12,000,000.00	1	1,000.00	12,001,000.00
May	36	2,100.00	1,000,000.00	1	200,000.00	1,000,200.00
June	15	2,101.00	1,000,000.00	15	2,001,000.00	1,000,000.00
Total	206	11,576.00	24,000,000.00	20	2,001,000.00	24,002,000.00

It will be seen that 418 terminations out of 105,050 awards constitute a very small percentage. However, it is essential to know when and why it is necessary to stop the payments and to know how long the payments were made. The cumulative terminations are shown as final payments in diagram 57.

#### Terminations.

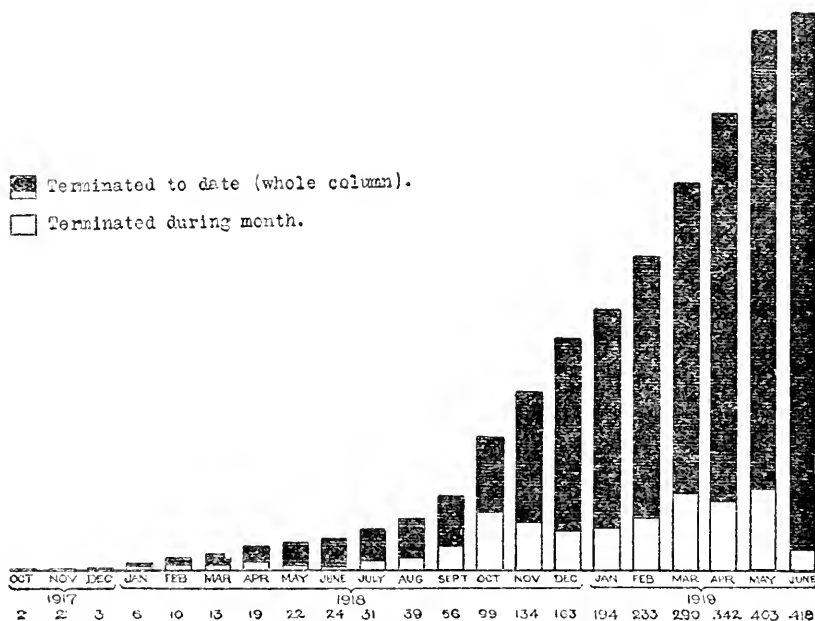


DIAGRAM 57.—Cumulative number of final payments, contract and automatic insurance claims distributed by the month of termination.

The durations of the awards or the lapse of time from first payment to final payment for each contract and automatic insurance case is given in Tables 60 and 61, respectively. The average length of time these closed awards had been running to the last mentioned beneficiaries of the deceased insured was seven months, and six and one-half months in cases of awards paid to the insured himself. The automatic insurance payments seem to have run on the whole slightly longer than payments on contract insurance.

## CONTRACT INSURANCE—DEATH AND DISABILITY CASES.

TABLE 60.—*Awarded claims on which payments have been closed because of death of beneficiary, showing length of time award (in months) was paid.*

	Less than 1 month.	1 month.	2 months.	3 months.	4 months.	5 months.	6 months.
Death.....	13	10	16	23	32	49	34
Disability.....	1	6	3	1	6	4	5
Total.....	14	16	19	24	38	53	39

	7 months.	8 months.	9 months.	10 months.	11 months.	12 months.	13 months.
Death.....	50	26	9	14	10	4	3
Disability.....	1	1	1	1	2	1	1
Total.....	51	26	10	14	12	5	3

	14 months.	15 months.	16 months.	Total.		
				Number.	Monthly payment.	Amount of insurance.
Death.....	2	1	1	297	\$15,283.50	\$2,658,000
Disability.....	1	1	1	32	1,432.25	249,086
Total.....	3	1	1	329	16,715.75	2,907,086

## AUTOMATIC INSURANCE—DEATH AND DISABILITY CASES.

TABLE 61.—*Awarded claims on which payments have been closed, showing length of time award (in months) was paid.*

	Less than 1 month.	1 month.	2 months.	3 months.	4 months.	5 months.	6 months.	7 months.	8 months.
Death.....		1		3	1		3	4	2
Disability.....		1	3			1		1	
Total.....		2	3	3	1	1	3	5	2

	9 months.	10 months.	11 months.	12 months.	13 months.	14 months.	15 months.	16 months.	17 months.
Death.....	5	5	6	5	5	10		6	5
Disability.....	3	4	2	1	1	1	4		
Total.....	8	9	8	6	6	11	4	6	5

	18 months.	19 months.	20 months.	21 months.	Total.		
					Number.	Monthly payment.	Amount insurance.
Death.....	2			2	69	\$1,725	\$310,500
Disability.....	2				20	500	90,000
Total.....	4			2	89	2,225	400,500

Diagram 58 effects the separation of the 418 terminated cases into the various policy amounts, \$10,000 policies ranking first, automatic policies second, and \$5,000 policies third.

The average policy amount for the terminated death cases is \$8,949 with an average monthly payment of \$51.46, while the average for disability cases is \$7,784 making an average monthly payment of \$44.75.

Through a comparison of this diagram with diagram 16 wherein policy amounts for all claims are tabulated, it is perceived that a much larger proportion of the terminated policies are for automatic insurance, 21.3 per cent in comparison with 4.8 per cent. This is due to the fact that the class of beneficiaries for automatic insurance is more restricted than for contract insurance.

#### Terminated Policies.

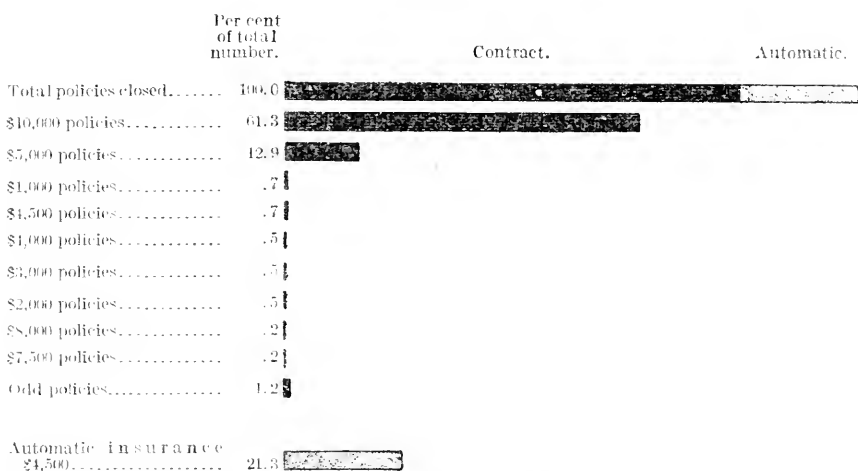


DIAGRAM 58.—Contract and automatic insurance, death and disability claims awarded upon which payments have been discontinued, showing separation by amounts of policies.

#### XV. CLAIMS NOT AWARDED.

In Section I distinction was made between those claims pending and those claims not awarded, and the former were then discussed. The latter class of cases has no award, not because the bureau awaits the return of papers, or information is lacking, but because for some reason awards can not be made. Table 62 presents these reasons. The 146 claims which were not valid under the law have been reduced since the closing of the compilation of this report. Most noticeable among this group are those cases in which men were stricken with influenza before an opportunity to apply for insurance had reached them, except on their deathbed, or before they were formally mustered into the service. In this group of unawarded cases are also those claims which will never become valid, those cases for instance where claim for insurance is made when there was no contract insurance or where claim for automatic insurance is made by persons not entitled to it.

## CONTRACT AND AUTOMATIC INSURANCE—DEATH AND DISABILITY CASES.

TABLE 62.—*Claims having no award distributed by the reasons why no awards have been made.*

Reasons.	Contract.			Automatic.			Total.		
	Death.	Disability.	Total.	Death.	Disability.	Total.	Death.	Disability.	Total.
No relatives in the permitted class....	263	.....	263	527	.....	527	790	.....	790
Beneficiary alien enemy.....	6	.....	6	6	.....	6	12	.....	12
No valid claim existing under the law.	108	14	122	38	41	79	146	55	201
Total.....	377	14	391	571	41	612	948	55	1,003

## XVI.—ACTIVE AWARDED CLAIMS.

The earlier sections have presented the analysis of all the cases which have come under observation during the period of study, irrespective of the status of the case at the close of the period. The last few sections have made some study of those cases which have been terminated, and those cases in which changes in beneficiaries have been necessitated. Mention also has been made of those disabilities who have died, thus changing the disability cases to death cases. The presentation of Table 63 is made in order that the condition of the death and disability insurance cases for June 30, 1919 may be summarized. The first part, dealing with death cases, shows that the 104,485 cases analyzed throughout the preceding sections have been increased to 104,750 because of the death of permanent total disabilities. These 265 cases did not need analysis in the mortality study, since they were included in the disability study. Cases upon which awards have been terminated decrease the number upon which awards are actively being made to 104,384 cases, involving a monthly payment of \$5,380,242.98. The second part of the table, dealing with disability cases, shows that the 565 cases which have been analyzed have been decreased by 317 deaths, leaving 248 disabilities receiving insurance awards on June 30, 1919. These 248 disability cases involve monthly payments of \$11,517.72.

The total amount of insurance upon which the Government is paying benefits is \$938,441,794. Of this amount \$916,432,294 was protection paid for by premiums, partly by means of deduction from the pay of the insured, with a resultant transfer of money from Army and Navy pay appropriation to insurance appropriation, and partly by direct receipt of monthly payment from the insured. The remainder, \$22,009,500, is automatic insurance, and the payments are made entirely from taxation.

The insurance part of the Bureau of War Risk Insurance is virtually a large Government insurance company, with the ex-service men of the United States as policy holders and with an enormous amount of insurance in force. This insurance may be retained as term insurance five years after the termination of the war, after which time it must be converted into one of the six usual forms of policies. During this period in which term insurance is in force, and in which the insured are converting policies, insurance is constantly lapsing and being reinstated. It is, therefore, impossible to make any statement regarding the liabilities of the Government for this fluctuating body of policy holders.

CONTRACT AND AUTOMATIC INSURANCE—DEATH AND DISABILITY.

TABLE 63.—*Awarded claims active on June 30, 1919.*

	Contract.			Automatic.			Contract and automatic.		
	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.	Number.	Monthly payment.	Amount of insurance.
<b>DEATH.</b>									
Claims originally awarded for death.	99, 625	\$7, 261, 552.47	\$915, 574, 310.00	4, 820	\$121, 500.00	\$21, 870, 000.00	104, 485	\$5, 386, 052.47	\$937, 444, 310.00
Claims originally awarded for disability, changing to death.	195	9, 419.01	1, 613, 000.00	70	1, 750.00	315, 000.00	265	11, 199.01	1, 958, 000.00
Total claims awarded for death.	99, 820	5, 271, 000.48	917, 217, 310.00	4, 930	123, 250.00	22, 185, 000.00	104, 750	5, 397, 251.48	939, 402, 310.00
Awarded death claims terminated.	297	13, 283.50	2, 658, 000.00	69	1, 725.00	310, 500.00	366	17, 008.50	2, 968, 500.00
Awarded death claims active on June 30, 1919.	99, 523	5, 258, 717.98	914, 559, 310.00	4, 861	121, 525.00	21, 874, 500.00	104, 384	5, 380, 242.98	936, 433, 810.00
<b>DISABILITY.</b>									
Claims originally awarded for disability.	415	21, 618.98	3, 765, 040.00	120	3, 000.00	540, 000.00	565	24, 618.98	4, 305, 040.00
Claims originally awarded for disability, changing to death.	195	9, 419.01	1, 613, 000.00	70	1, 750.00	315, 000.00	265	11, 199.01	1, 958, 000.00
Total claims awarded for disability.	320	12, 199.97	2, 122, 040.00	50	1, 250.00	225, 000.00	300	13, 449.97	2, 317, 040.00
Awarded disability claims terminated.	32	1, 432.25	219, 086.00	20	500.00	90, 000.00	52	1, 432.25	239, 086.00
Awarded disability claims active on June 30, 1919.	218	10, 767.72	1, 872, 954.00	30	750.00	135, 000.00	218	11, 517.72	2, 007, 954.00
<b>DEATH AND DISABILITY.</b>									
Awarded death and disability claims terminated to June 30, 1919.	329	16, 715.75	2, 967, 086.00	89	2, 225.00	400, 500.00	418	18, 940.75	3, 367, 586.00
Total awarded death and disability claims active on June 30, 1919.	99, 741	5, 269, 185.70	916, 432, 294.00	1, 891	122, 275.00	22, 009, 500.00	104, 632	5, 391, 760.70	938, 441, 794.00

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## PART II.

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### MILITARY AND NAVAL COMPENSATION.

Period considered, October 6, 1917, to June 30, 1919.

Total death cases analyzed . . . . .	25,251
Total disability cases analyzed . . . . .	32,876
Total military and naval compensation claims awarded.	58,127
Total monthly payment for compensation . . . . .	\$1,728,467.19





# MILITARY AND NAVAL COMPENSATION CLAIMS.

## XVII. CLAIMS FOR COMPENSATION BENEFITS.

Deaths and disabilities which have occurred as a result of military or naval service on or after October 6, 1917, may be compensated. Claims for compensation on account of death of the person in the service range from those filed by dependent relatives within the permitted class of beneficiaries to those filed by self-supporting relatives not within the permitted class. Claims for compensation for disability are made by persons ranging from those whose disabilities consist of very slight injuries to those who are helpless and permanently bedridden. The following table indicates the number of claims for compensation received by the Bureau of War Risk Insurance, those claims awarded those not awarded, and those pending.

### MILITARY AND NAVAL COMPENSATION.

TABLE 64.—*Statement of number of compensation claims due to death and disability for the period Oct. 6, 1917, to June 30, 1919.*

Claims received.....	243, 660
Death claims awarded.....	25, 074
Disability claims awarded.....	33, 053
Total claims awarded.....	58, 127
Death claims disallowed.....	47, 815
Disability claims disallowed.....	3, 040
Not actual death claims.....	12, 760
Not actual disability claims.....	2, 668
Total claims not awarded.....	66, 283
Total claims disposed of.....	124, 410
Claims pending.....	119, 250

The principal analyses made in the following tables and diagrams are arranged on the basis of attendant circumstances and conditions surrounding those cases in which claims for compensation have been awarded. Those claims which have not been awarded compensation either are not claims, though they have been so considered, or are claims which are not valid under the law. These cases are given separate treatment in a later section. The so-called pending cases are those in which no action has been taken. In nearly all of these cases more information is necessary for the establishment of the claim, certain certificates, affidavits, etc., being awaited. A wife and children need only prove relationship, while father and mother must prove dependency in addition to relationship. The disabled person must submit to the necessary medical examinations in order that the disability be established. A further requirement is that the death or disability must have been the result of service and not the result of misconduct. Instances often occur in which dependency is doubtful, or in which the extent of disability is questionable and it appears that conditions

will arise within the proper period prescribed by law which will make the case compensable. Such cases are allowed to remain pending. In the latter instances, however, many deserving cases are given temporary awards pending final decision. It is considered better so long as there remains a possibility that an award may be made, to allow the case to remain pending than to class it with those in which decision has been reached that no award should be made. Diagram 59 compares the number of cases at present falling in classification of these three stages with the total number of claims received.

By means of diagram 60 a comparison is made between the number of claims for compensation received each month and the number of claims awarded compensation each month. The vertical separation of the curves represents those cases pending and those closed not awarded. The horizontal separation represents roughly the time necessary to collect material sufficient to justify a compensation award.

The compensation study considers two groups of cases. The first, the death group, consists of all those cases in which the dependents of the deceased person have been awarded compensation. The second, the disability group, consists of all those cases in which the disabled person with or without dependents has been awarded com-

#### Military and Naval Compensation Claims.



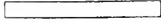

	Number.	
Claims received.....	243,660	
Claims awarded.....	58,127	
Claims not awarded...	66,283	
Claims pending.....	119,250	

DIAGRAM 59.—Status of the claims for compensation on June 30, 1919.

penetration. The first group of cases is a restricted group and is in no wise exclusively representative of deaths due to service, while the second group is representative of the disabilities incurred in or as a result of service.

Cases in which the disability is incurred directly or indirectly as a result of service and in which the disability is at least 10 per cent of total incapacitation, are compensable. These disability cases are separated into four groups according to the degrees or extent of the disability. All disabilities are divided into those which totally incapacitate and those which partially incapacitate. Further, each group is separated into those which permanently disable and those which disable temporarily. Therefore, the disability study of cases for which compensation has been awarded, is concerned with four groups: The permanently and totally disabled persons; the temporarily and totally disabled persons; the permanently and partially disabled persons; and the temporarily and partially disabled persons. There is an additional separation of the temporarily and totally disabled persons into those who are receiving vocational training and those who are not. Classifications for temporary total disabilities do not include those receiving vocational training, unless specifically so stated. These cases came under observation in this experience during the time when the bureau had an administrative part in the vocational training award. Since then the acceptance of an appli-

ment by the Federal Board for Vocational Training necessitates the termination of the compensation award or in some cases the making of a supplementary \$20 award. The completion of vocational training is sometimes reason for beginning a compensation award and in cases where the \$20 supplementary award was given, it might operate to increase the award.

### Month of Receipt and Award of Claims.

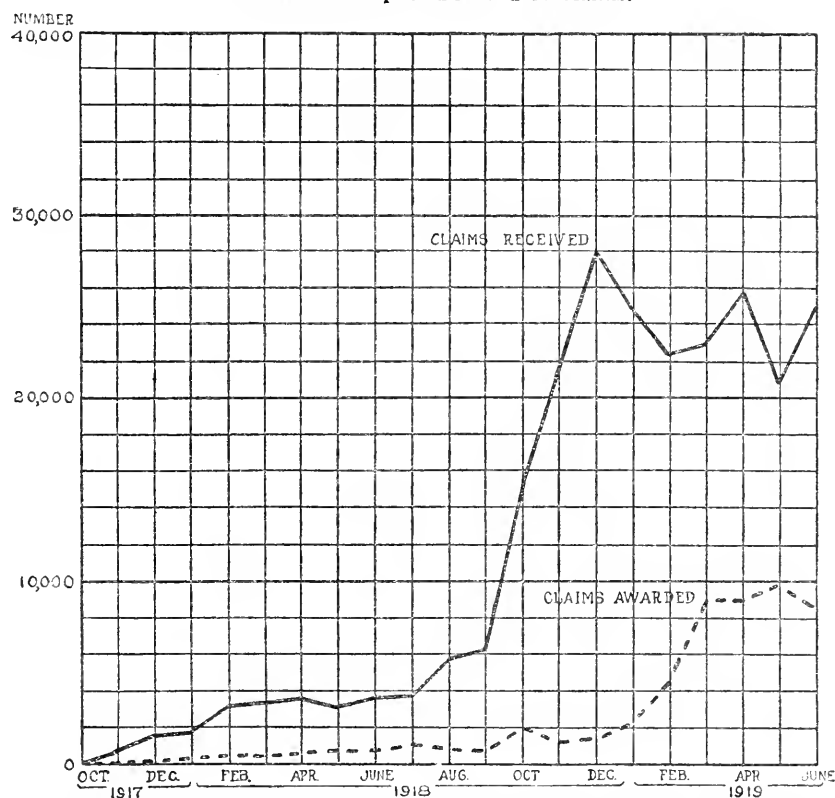


DIAGRAM 60.—Compensation claims on account of death and disability received and awarded by the Bureau of War Risk Insurance by date of receipt and date of award, respectively.

The four classes of disabilities have rather definite lines of demarcation. Both classes of total disabilities receive the same basic rate of compensation. The temporary total disability cases are reviewed each month with a view to changing them to a permanent status. The partial disabilities must be rated according to the degree of the disability, which percentage is used as a means of determining the proportion of the total disability award which is payable. As with the totally disabled, those who are on the temporary rolls are examined each month in order that necessary changes may be made.

## XVIII. AWARDED CLAIMS ACTIVE.

Changes in compensation awards are constantly being made, and particularly in the temporary group, awards are at all times subject to increase, decrease or termination. An observation on changes which have occurred is made in a later section. There have been 177 deaths occurring among the disability groups for which

## Date of Initial Payment.

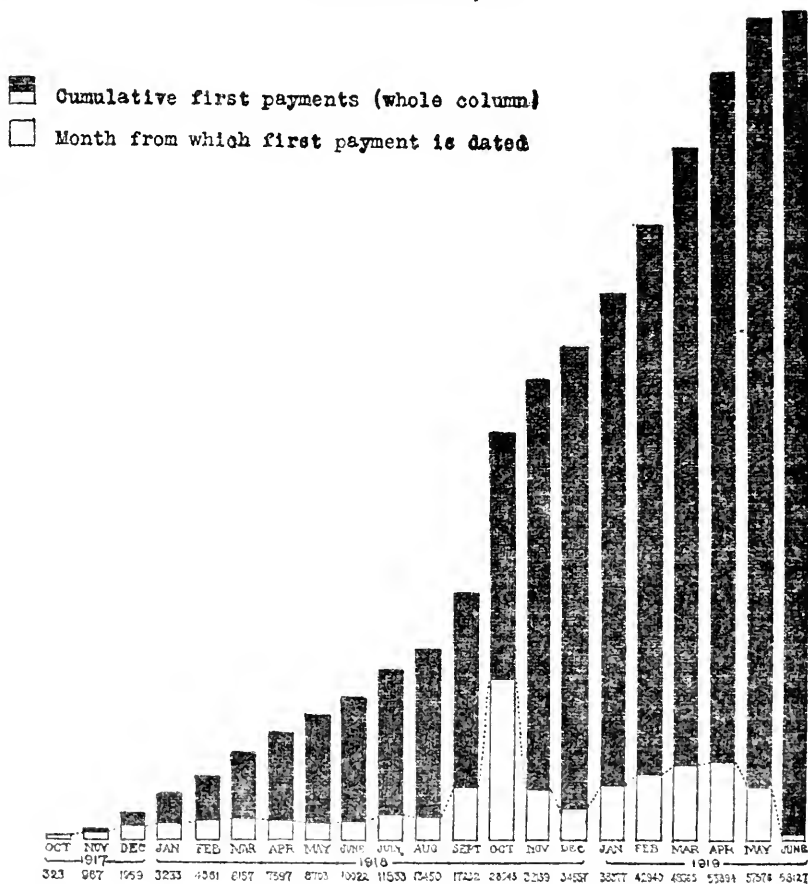


DIAGRAM 61.—Cumulative first monthly payments made on compensation awards as last made for death and disability.

death awards have been made. By means of Table 65 it is shown that the 25,074 original death claims awarded have been increased to 25,251 and that the 33,053 original disability claims awarded have been decreased to 32,876 because of the addition and subtraction of the 177 deaths among the disabled persons. These 177 cases are treated with the death group rather than the disability group in the analyses which follow. The table also indicates 424 death cases and 5,359 disability cases upon

which awards have been terminated, showing as a final result out of a total of 58,127 cases that 52,344 cases have awards actively running at the time these compilations were brought to a close. Cases in which awards have been terminated are given separate consideration. The cases under observation, consisting of 25,251 deaths and 32,876 disabilities, in the study of awarded compensation claims are all those active cases according to their status on June 30, 1919, and all those terminated cases according to their status at the time of termination.

The 24,827 death cases and 27,517 disability cases upon which awards are actively running have had numerous changes which have resulted in a net increase in the total compensation awarded on account of death, and which have resulted in a net decrease in the total compensation awarded on account of disability. Table 66 presents the active cases by the month on which the award, as being paid, was made.

## COMPENSATION—DEATH AND DISABILITY CASES.

TABLE 65.—*Awarded claims active on June 30, 1919.*

	Number.	Monthly payment.
DEATH.		
Claims originally awarded for death.....	25,074	\$671,955.03
Claims originally awarded for disability, changing to death.....	177	4,602.00
Total claims awarded for death.....	25,251	676,557.03
Net change in monthly payments.....		+1,647.84
Awarded death claims terminated.....	424	10,256.00
Awarded death claims active June 30, 1919.....	24,827	667,948.87
DISABILITY.		
Claims originally awarded for disability.....	33,053	1,081,206.87
Claims originally awarded for disability, changing to death.....	177	5,789.67
Net claims awarded for disability.....	32,876	1,075,417.20
Net change in monthly payments.....		-25,154.88
Awarded disability claims terminated.....	5,359	173,342.74
Awarded disability claims active on June 30, 1919.....	27,517	876,919.58
DEATH AND DISABILITY.		
Total awarded death and disability claims terminated to June 30, 1919.....	5,783	183,598.71
Total awarded death and disability claims active on June 30, 1919.....	52,344	1,544,868.45

Diagram 61 shows the active cases awarded or reawarded each month, bringing together in each month all cases previously awarded if the awards are still running as made.

## COMPENSATION—DEATH AND DISABILITY CASES.

TABLE 66.—*Distribution of cases by the date of the award now actively running.*

Date of award.	Death.				Disability.								Total.		Total death and disability.	
	Permanent total with or without nurse.		Permanent partial.		Temporary total with or without nurse.		Temporary partial.		Receiving vocational training.		Total.		Num-ber.	Monthly payment.	Num-ber.	Monthly payment.
	Num-ber.	Monthly payment.	Num-ber.	Monthly payment.	Num-ber.	Monthly payment.	Num-ber.	Monthly payment.	Num-ber.	Monthly payment.	Num-ber.	Monthly payment.				
1917.																
October.....	64	\$1,192.50	3	\$230.00	6	\$80.10	56	\$1,810.00	8	\$110.89	1	\$30.00	73	\$2,230.99	137	\$3,732.19
November.....	215	5,452.50	4	210.00	8	110.85	83	2,745.00	11	197.57			107	3,293.42	342	9,215.92
December.....	403	10,135.00	3	220.00	8	70.00	125	4,025.00	10	185.25			146	4,500.25	519	14,695.25
1918.																
January.....	450	11,285.00	6	455.00	19	282.95	218	7,450.00	21	355.09			261	8,273.04	714	19,558.04
February.....	358	8,900.00	7	415.00	10	131.50	300	9,995.00	31	567.05			318	11,158.55	706	20,118.55
March.....	415	10,685.75	8	520.00	13	132.58	370	12,667.00	48	822.29	1	30.00	449	11,191.87	864	21,881.62
April.....	600	12,048.75	11	1,030.00	18	176.15	363	11,625.00	60	954.01	1	30.20	456	11,121.36	916	26,110.11
May.....	411	10,598.25	11	837.50	11	165.60	288	9,517.50	53	913.29	1	55.00	365	11,748.80	779	22,347.14
June.....	822	26,044.25	12	900.00	10	161.65	301	10,270.63	39	502.65			368	11,987.33	1,197	38,031.58
July.....	1,197	32,119.08	13	870.00	17	231.50	302	9,355.50	43	713.27			376	11,796.27	1,573	43,915.35
August.....	883	23,557.17	11	585.00	11	172.85	401	13,765.25	60	951.93			479	15,478.63	1,362	39,035.20
September.....	3,063	81,724.11	5	265.00	16	204.00	369	12,777.50	60	1,051.85	6	308.10	456	11,006.75	3,519	96,330.80
October.....	10,358	276,017.70	9	765.00	11	153.50	445	15,420.00	61	1,056.88	9	306.30	523	17,611.68	10,893	293,650.38
November.....	2,735	73,568.00	3	285.00	18	282.05	588	20,364.00	59	1,856.39	4	205.00	672	21,901.44	3,107	95,550.41
December.....	1,011	28,117.08	11	700.00	44	496.38	931	32,611.00	69	1,201.62	27	1,275.00	1,082	36,317.00	2,006	61,734.08
1919.																
January.....	782	22,310.00	9	696.00	187	1,659.20	1,763	59,163.50	151	2,445.36	197	8,991.40	2,317	72,955.46	3,090	95,265.46
February.....	619	18,108.75	20	1,424.50	226	1,917.80	2,567	89,874.00	239	3,117.55	271	12,303.19	3,326	101,837.04	3,975	123,062.79
March.....	329	9,128.75	22	1,862.50	218	2,356.03	3,795	129,876.50	438	6,290.64	307	14,007.16	4,810	151,237.13	5,139	169,725.88
April.....	137	3,989.70	13	984.00	152	1,856.00	4,651	159,025.62	626	8,677.11	367	17,294.77	5,812	181,857.83	5,919	187,827.53
May.....	33	850.00	60	1,231.99	82	1,231.99	3,500	119,928.63	407	5,464.86	291	13,834.79	1,343	112,963.27	4,376	143,413.27
June.....	19	562.50	4	400.00	25	371.95	563	18,672.00	62	771.03	79	3,868.00	733	21,082.98	752	24,613.48
Total.....	24,827	697,918.87	247	19,714.50	1,110	12,313.63	21,994	731,901.63	2,568	37,214.31	1,568	72,715.51	27,517	876,919.58	52,314	1,544,808.45

## XIX. AGE INCIDENCE.

Table 67 presents the age composition of the death and disability groups, coming under the compensation observation.

## COMPENSATION—DEATH AND DISABILITY CASES.

TABLE 67.—*Ages of the deceased and the disabled at date of death and disability, respectively.*

Age.	Death.	Disa- bility.	Total.	Age.	Death.	Disa- bility.	Total.
15.....		2	2	42.....	58	80	138
16.....	9	6	15	43.....	45	66	111
17.....	42	39	81	44.....	37	53	90
18.....	151	112	263	45.....	42	50	92
19.....	409	713	1,122	46.....	39	40	79
20.....	624	1,241	1,865	47.....	25	27	52
21.....	960	1,719	2,679	48.....	18	24	42
22.....	2,207	2,381	4,588	49.....	19	21	40
23.....	2,851	3,986	6,810	50.....	16	12	28
24.....	2,798	3,855	6,653	51.....	14	12	26
25.....	2,429	3,209	5,728	52.....	14	15	29
26.....	2,304	2,838	5,142	53.....	10	15	25
27.....	2,002	2,437	4,439	54.....	5	7	12
28.....	1,759	1,998	3,757	55.....	9	11	20
29.....	1,644	1,753	3,397	56.....	5	4	9
30.....	1,372	1,607	2,979	57.....	4	4	8
31.....	1,137	1,446	2,583	58.....	8	3	11
32.....	839	962	1,801	59.....	8	4	12
33.....	270	529	799	60.....	5	1	6
34.....	198	330	528	61.....	3	2	5
35.....	181	229	410	62.....	1	3	7
36.....	154	200	354	63.....	2		2
37.....	126	192	318	64.....	1	3	4
38.....	112	137	249	65.....	1		1
39.....	118	149	267				
40.....	100	121	221	Total.....	25,251	32,876	58,127
41.....	60	108	168				

Age.

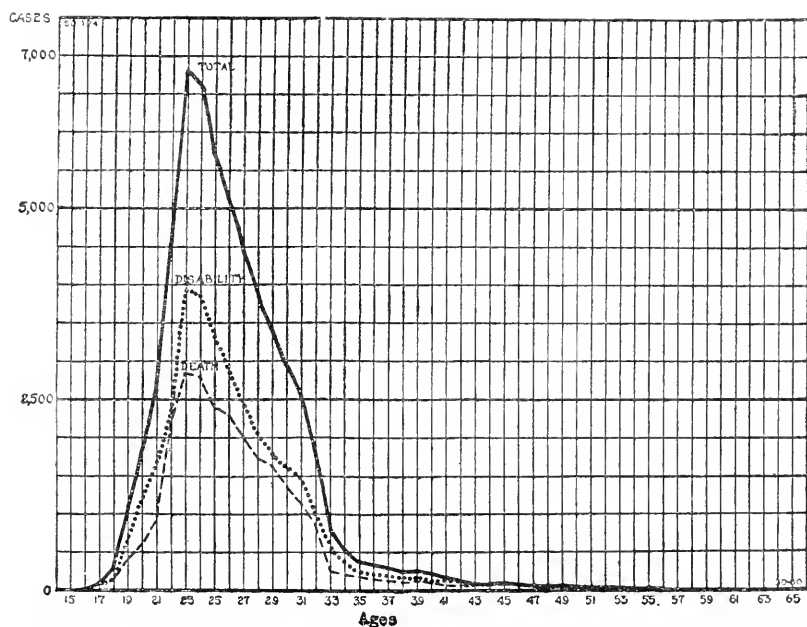


DIAGRAM 62.—Age of the deceased at the time of death, age of the disabled at the time of disability, and the combined ages in the total number of cases in which compensation claims have been awarded.

The age is taken as that at death, or in disability cases that at disability. Compensation is not payable until after discharge, and though the disabled condition existed prior to discharge the date of the latter has, in the majority of instances, been chosen as the most authentic disability date. Diagram 62 shows the age distribution in the death group, in the disability group and in the total compensation exposure. The three curves show the same asymmetrical distribution.

The average age of the 32,876 disabled who have received compensation was 26 years and 2 months. The corresponding median age was 25 years and 3 months. The frequency distribution shows the age 23 to have been the point of maximum disability incidence.

## XX. RELATIONSHIP OF BENEFICIARIES.

The results of tabulation of the facts relative to the beneficiaries who are in receipt of compensation on account of death of the person in the service, are presented in Table 68. This table shows that 8,004 mothers as single beneficiaries are receiving compensation awards to the amount of \$163,092.75 each month and that, though there are only 7,177 wives as single beneficiaries receiving compensation, the monthly amount is greater, being \$179,618.46, due to the fact that a dependent mother receives less compensation than a wife. These amounts of monthly payment are not static, but fluctuate each month.

### COMPENSATION—DEATH CASES.

TABLE 68.—*Relationship of the beneficiary to the deceased.*

	Num- ber.	Monthly payment.		Num- ber.	Monthly payment.
Wife.....	7,177	\$179,618.46	Mother and more than one child.....	8	\$440.00
Child.....	432	8,556.25	Mother, father.....	2,629	79,230.00
More than one child.....	139	4,515.70	Mother, sister.....	1	30.00
Father.....	8,004	163,092.75	Wife, child, mother.....	109	6,005.00
Grandmother.....	1,477	30,627.50	Wife, mother, and more than one child.....	43	2,762.50
Grandfather.....	2	77.50	Wife, others.....	198	10,925.50
Sister.....	2	55.00	Child, others.....	31	1,127.50
Brother.....	21	1,110.00	Mother, others.....	7	275.00
Wife, child.....	6	316.25	Father, others.....	7	312.50
Wife and more than one child.....	3,300	115,474.71			
Wife, mother.....	1,256	55,863.97	Total.....	25,231	678,204.87
Mother, child.....	358	16,000.00			
	38	1,488.75			

From this table is also obtained the number of mothers in receipt of compensation awards alone or in conjunction with other relatives. Combinations of groups show that there are in receipt of compensation benefits 11,197 mothers, 12,441 wives, 4,113 fathers and at least 6,805 children. The last group is obtained by doubling the number in all groups containing more than one child and adding it to the group containing a single child. Hence, where there are more than two children in the group, the additional ones have not been included. However, there are comparatively few cases in which there are three or more children.

Comparison of the groups of beneficiaries is made in diagram 63. It shows that the mother is the single dependent in 31.7 per cent and that the wife is the single dependent in 28.4 per cent of the total



number of cases in spite of the fact that the mother must prove dependency and that the wife is so considered without proof. However, when the total number of mothers and wives is considered, the order would again be reversed.

### Beneficiaries in Death Cases.

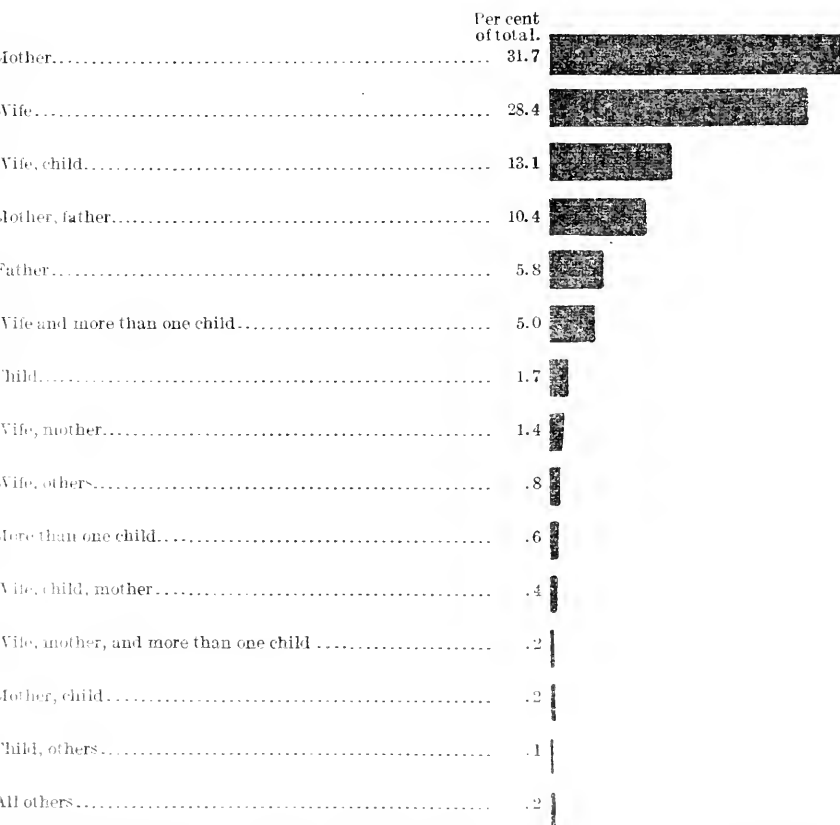


DIAGRAM 63.—Number of awarded compensation claims showing relationships of the beneficiaries to the deceased.

### COMPENSATION—DISABILITY CASES.

TABLE 69.—*Relationship of the beneficiary to the disabled.*

	Num-ber.	Monthly payment.		Num-ber.	Monthly payment.
Self.....	26,621	\$762,293.51	Self, child, and mother.....	6	\$275.00
Self, wife.....	2,767	117,355.60	Self, mother, and more than one child.....	2	120.00
Self, child.....	86	3,337.24	Self, father, mother.....	272	12,888.03
Self and more than one child.....	45	2,396.00	Self, others.....	101	5,673.31
Self, mother.....	1,126	43,663.96	Total.....	32,876	1,050,262.32
Self, father.....	90	3,326.83			
Self, sister.....	1	30.00			
Self, wife, child.....	1,217	61,042.93			
Self, wife, and more than one child.....	542	35,429.88			

Those disability cases to whom compensation awards have been made alone or in combination with relatives are presented in Table 69, and demonstrates that in conjunction with the disabled person, 4,526 wives, 1,406 mothers, 362 fathers and at least 2,487 children have been given compensation. As before there are more children than represented in the tabulation.

By means of diagram 64 the relative size of these groups is shown. That in 81 per cent of the total number of disability cases where

**Beneficiaries in Disability Cases.**

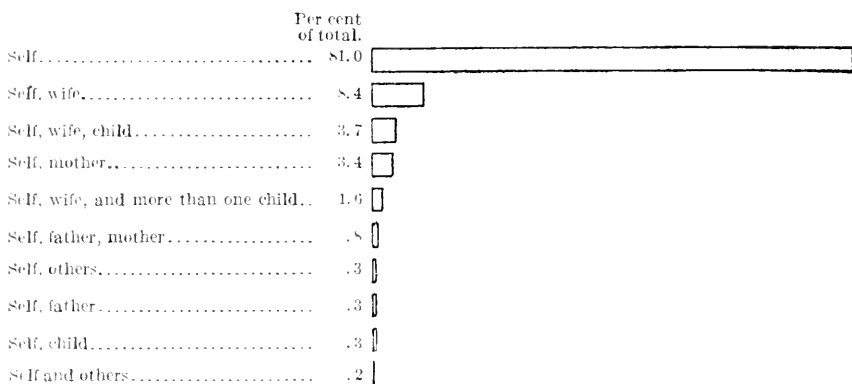


DIAGRAM 64.—Number of compensation claims awarded to the disabled showing relationship of the joint beneficiaries.

compensation has been awarded the award has been to the disabled person alone, is indicative that the disabled was unmarried and that the parents were not dependent.

## XXI. DATE OF DEATH OR DISABILITY.

In the month of the passage of the war risk insurance act there occurred 79 deaths and 244 disabilities for which compensation awards have been given under the provisions made. Table 70 presents all later deaths and disabilities by the months in which they arose. The total deaths are given as 25,074 and the total disabilities as 33,053, showing that the date of the disabilities of the 177 disabled persons who have died has been given and not the death date, whereas it has been customary in the other analyses to consider them in the death group.

Diagram 65 presents graphically the groups of mortalities in each month. A comparison of this death exposure with that of the insurance study, as presented in diagram 20, Part I, will show that the fact of having dependents did not affect the time distribution.

Diagram 66 groups the disabilities by the date of the appearance of the disability. The median month of disability was February, 1919. The maximal group in the distribution is for the month of April, 1919. This distribution is due to the fact that disabilities are not compensable until after discharge, and therefore the majority of claims were made after November, 1918. The usual correspondence of the discharge and the disability dates, on account of the uncertainty of the latter, has been indicated, which further shows the reason why disabilities have apparently occurred much later than deaths.

## Date of Death.

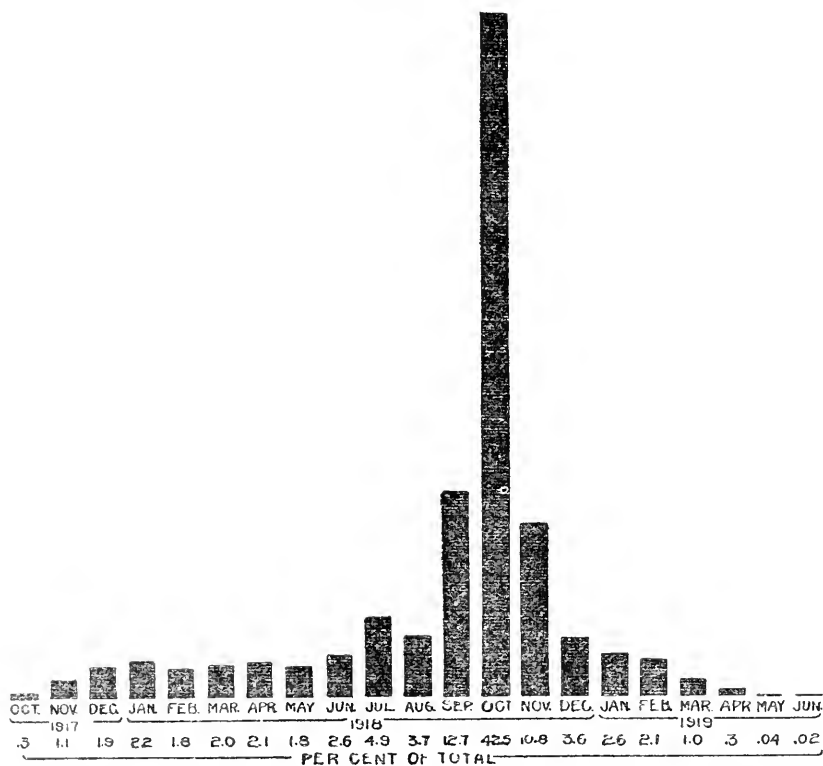


DIAGRAM 65.—The per cent of the total number of deaths occurring in each month for which compensation claims have been awarded.

## Date of Disability.

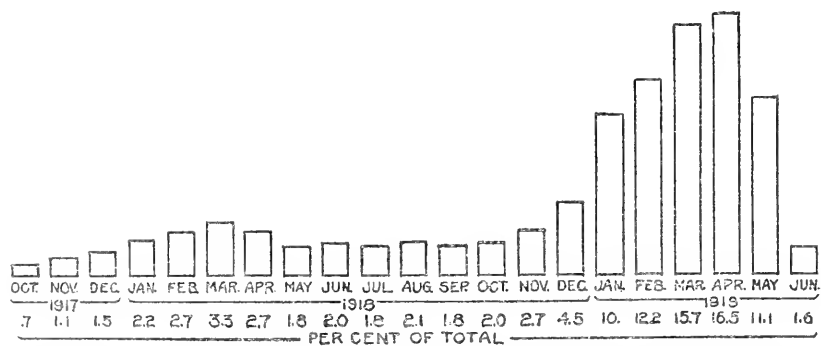


DIAGRAM 66.—The per cent of the total number of disabilities occurring in each month for which compensation claims have been awarded.

COMPENSATION—DEATH AND DISABILITY CASES.  
TABLE 70.—*Distribution of cases by the date of death or of disability.*

Date.	Death.		Disability.						Total.		Total death and disability.					
	Permanent total with or without nurse.		Permanent partial.		Temporary total with or without nurse.		Temporary partial.		Receiving vocational training.		Num-ber.	Monthly payment.				
	Num-ber.	Monthly payment.	Num-ber.	Monthly payment.	Num-ber.	Monthly payment.	Num-ber.	Monthly payment.	Num-ber.	Monthly payment.						
1917.																
October.....	79	\$2,032.50	11	\$610.00	8	\$113.10	191	\$6,230.00	30	\$193.18	1	\$30.00	214	\$7,476.28	323	\$9,508.78
November.....	278	7,622.50	17	580.00	12	117.45	283	9,435.00	54	891.19			386	11,063.91	614	18,686.41
December.....	485	13,165.00	26	1,125.00	10	94.00	423	11,044.00	48	830.81			507	16,093.81	992	29,788.81
1918.																
January.....	513	11,829.50	39	1,710.00	32	506.45	587	19,611.20	72	1,339.97	1	40.00	731	23,210.62	1,274	38,040.12
February.....	441	11,837.50	33	1,315.00	11	231.60	770	25,795.17	80	1,412.10			897	28,816.87	1,328	40,651.37
March.....	496	13,730.75	36	1,575.00	18	291.51	930	31,365.00	116	2,162.56			1,100	35,361.07	1,596	49,091.82
April.....	523	11,598.25	41	1,900.00	11	130.40	784	26,310.00	68	1,272.29			907	29,612.60	1,410	43,121.35
May.....	457	12,298.25	28	1,377.50	11	168.60	572	19,445.00	38	737.81			619	21,626.91	1,106	33,717.16
June.....	663	17,887.25	29	1,410.00	12	207.15	585	19,759.00	36	579.78			656	21,936.93	1,319	39,844.18
July.....	1,229	32,784.08	20	1,210.00	13	185.00	523	17,630.50	35	592.66			594	19,618.16	1,811	52,107.24
August.....	919	21,536.03	27	1,130.00	8	129.60	624	21,200.00	39	713.01			698	23,182.63	1,617	48,013.30
September.....	3,179	81,806.61	42	1,530.00	8	71.58	555	19,120.00	25	406.00	3	105.00	683	20,332.58	3,782	105,119.22
October.....	40,669	284,237.10	15	800.00	6	70.50	603	20,970.00	26	453.89	3	90.00	651	22,384.39	11,311	396,621.79
November.....	2,703	71,013.00	10	520.00	11	225.05	839	29,000.00	27	430.52	3	157.00	893	30,140.57	3,506	102,353.57
December.....	908	21,158.75	14	720.00	29	287.93	1,388	45,151.00	11	809.59	13	623.00	1,400	50,631.52	2,398	75,110.27
1919.																
January.....	699	18,175.00	12	700.00	182	1,433.95	2,812	95,876.70	87	1,521.50	55	2,390.10	3,180	101,635.65	3,810	119,708.65
February.....	531	11,276.25	19	1,100.50	181	1,369.15	3,690	121,552.00	113	1,616.36	75	3,190.50	3,929	128,558.71	4,563	142,831.86
March.....	234	6,233.75	21	1,098.20	163	1,288.30	1,789	136,700.50	131	1,806.81	88	3,717.39	2,105	109,239.21	2,423	171,472.96
April.....	81	2,232.50	9	776.75	46	386.05	3,197	179,759.50	106	1,601.61	90	3,968.37	3,148	177,171.48	3,329	179,403.98
May.....	10	267.50	60	6,000.00	14	231.59	3,191	115,357.00	33	457.39	71	3,196.00	3,672	125,222.68	3,652	125,490.18
June.....	5	132.50	1	400.00	2	23.55	523	17,066.00	3	51.30	11	508.20	516	18,117.25	531	18,279.15
Total.....	25,071	671,365.63	487	27,592.25	800	7,568.11	30,172	1,067,913.27	1,211	20,060.67	123	18,676.17	39,023	1,081,206.87	58,127	1,733,161.90

While it is not possible to determine exactly, it is probable that the disabled who were discharged before the period of heavy fighting, had incurred their disabilities at a time comparatively near the date of discharge. During the period of heavy fighting there were many wounded in action who did not die, and though they were often wounded seriously many never became compensable cases because of recovery. Even those who became compensable were held until the maximum hospital and surgical treatment available had been given.

It is of interest to bring the dates of death and disability together on a percentage basis, as has been done in diagram 67.

Dates of Death and Disability.

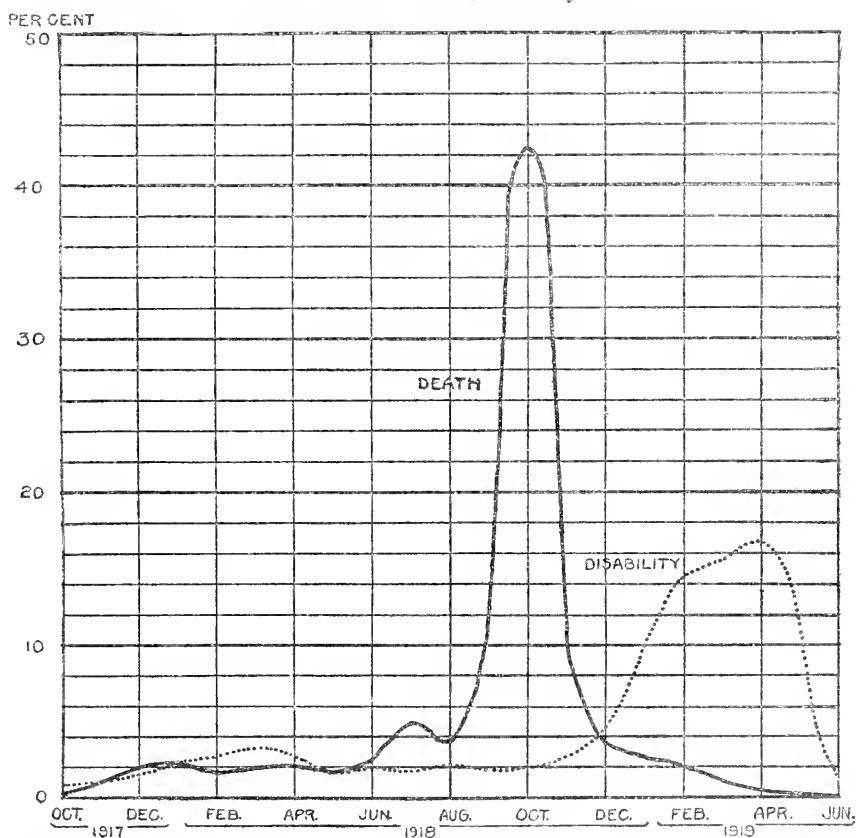


DIAGRAM 67.—Per cent of deaths and per cent of disabilities by date of death or disability in awarded claims of compensation.

## XXII. ORGANIZATIONS OF THE MILITARY AND NAVAL ESTABLISHMENTS.

Attention is next directed toward the compilation demonstrating the number of the deceased and the disabled included in the various organizations. The organization indicated is that with which the person in the service was last associated before death, disability or discharge. The facts are set forth in detail in Table 71. The infantry and the depot brigade stand first and second, respec-

tively, in both the mortality and the disability studies. In graphic illustration of this table is presented diagram 68, which gives the comparative losses incurred by the various organizations. The Army Nurse Corps suffered 45 compensable disabilities, while the Navy Nurse Corps had 3 cases. Of the 45 members of the Army Nurse Corps, 40 were temporarily and totally disabled, and the 3 cases among the Navy women were classified in the same way.

## COMPENSATION—DEATH AND DISABILITY CASES.

TABLE 71. *Organization at the time of death or of disability.*

Organization.	Death.	Disability.					Total.	Total death and disability.
		Per- manent total with or without nurse.	Per- manent partial.	Tem- porary total with or without nurse.	Tem- porary partial.	Receiv- ing vo- cational training.		
Infantry.....	10,668	158	633	11,999	1,316	631	14,740	25,468
Depot Brigade.....	2,334	37	86	2,346	227	105	2,801	5,135
Field Artillery.....	1,433	30	63	1,593	175	106	1,967	3,400
Engineer Corps.....	1,287	30	49	1,353	161	80	1,673	2,960
Machine Gun Battalion.....	1,104	26	55	1,306	163	76	1,626	2,730
Medical Corps.....	1,224	22	35	1,349	177	91	1,647	2,871
Signal Corps.....	456	12	9	422	51	26	520	976
Quartermaster Corps.....	571	12	21	625	92	47	767	1,368
Training Corps.....	422	1	5	186	18	3	213	635
Coast Artillery.....	455	10	12	443	54	29	548	1,003
Aviation.....	341	6	13	462	43	32	556	897
Labor Battalion.....	528	1	.....	147	5	1	154	682
Motor Transport Corps.....	356	3	14	320	26	13	376	732
Ordnance.....	182	5	7	284	26	14	333	515
Cavalry.....	126	5	7	203	25	19	259	385
Tank Service.....	100	.....	.....	48	7	4	59	159
Chemical Service.....	73	1	2	58	6	2	69	142
Trench Mortar Corps.....	44	.....	.....	54	10	6	70	114
Balloon Corps.....	30	.....	1	27	4	1	33	73
Adjutant General.....	4	.....	.....	8	.....	.....	8	12
General Staff.....	1	.....	.....	4	.....	1	5	6
Inspector General.....	1	.....	.....	.....	.....	.....	.....	1
Judge Advocate General.....	4	.....	.....	.....	.....	.....	.....	4
Marine Corps.....	493	7	24	551	42	27	651	1,144
Navy.....	1,866	59	69	1,703	203	282	2,316	4,182
Coast Guard.....	49	.....	.....	16	.....	1	17	66
Army Nurse Corps.....	28	3	.....	40	2	.....	45	73
Navy Nurse Corps.....	4	.....	.....	3	.....	.....	3	7
All others.....	1,037	11	44	1,147	135	53	1,390	2,447
Total.....	25,251	439	1,149	26,664	2,908	1,456	32,576	58,127

Of the men permanently and totally disabled, 36 per cent were infantrymen and 13 per cent belonged to the Navy, while over half of all the permanent partial disabilities are classified with the Infantry. Again, among those temporarily disabled to whom compensation awards have been made, 45 per cent of those totally disabled belonged to the infantry, 6 per cent to the Navy, and 9 per cent to the depot brigade. Also 41 per cent of those partially disabled were infantrymen. Nearly 45 per cent of all disabilities compensated were for traumas or diseases among infantrymen.

Table 72 gives the compensated death and disability cases which have arisen in the four arms of the service—the Army, the Navy, the Marine Corps and the Coast Guard. Eighty-seven per cent of the permanent total disabilities were among those serving in the Army. Nearly 92 per cent of the permanent partial disabilities, nearly 91 per cent of the temporary total disabilities, and nearly 92 per cent of the temporary partial disabilities are classified in the Army.

Diagram 69 shows the separation of cases into deaths, permanent total disabilities, permanent partial disabilities, temporary total disabilities, temporary partial disabilities and temporary total disabilities receiving vocational training for each of the four arms of the service.

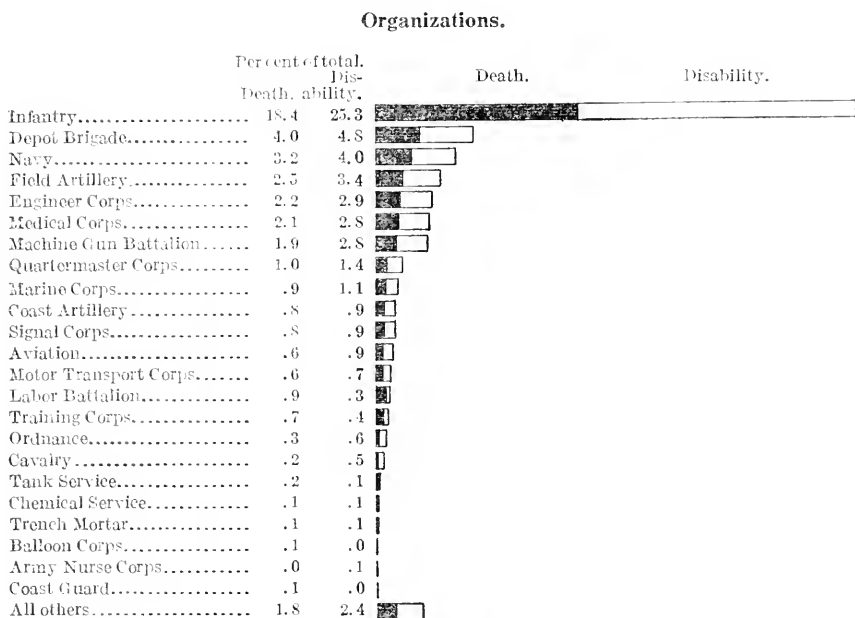


DIAGRAM 68.—The total number of compensation claims awarded separated as to death and disability cases distributed according to organizations.

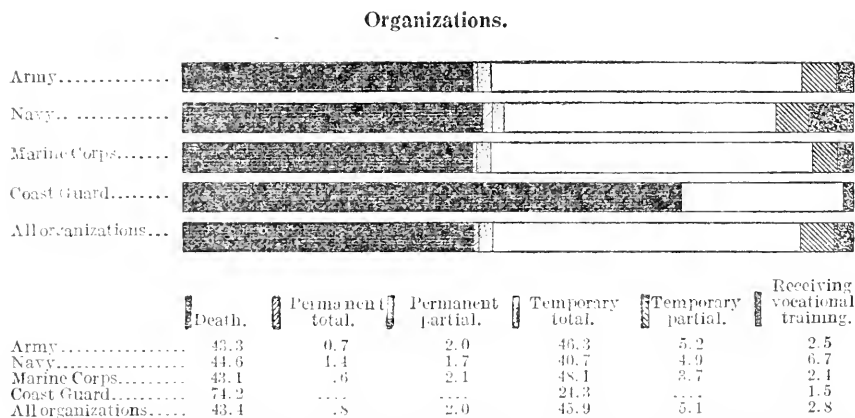


DIAGRAM 69.—Claims for compensation awarded to members of the Military and Naval establishments. The proportions of deaths and the various extents of disability are represented for each organization.

## COMPENSATION—DEATH AND DISABILITY CASES.

TABLE 72.—*Main divisions of the Military and Naval Establishments.*

Organization.	Death.	Disability.						Total death and disability.
		Perma- nent total with or without nurse.	Perma- nent partial.	Tempo- rary total with or without nurse.	Tempo- rary partial.	Receiving voca- tional training.	Total.	
Army.....	22,841	370	1,056	24,351	2,721	1,345	29,841	52,655
Army Nurse Corps.....	28	3		40	2		45	73
Navy.....	1,866	59	69	1,703	293	282	2,316	4,182
Navy Nurse Corps.....	4			3			3	7
Marine Corps.....	493	7	24	551	32	27	651	1,144
Coast Guard.....	49			16		1	17	66
Total.....	25,251	439	1,149	26,664	2,968	1,656	32,876	58,127

## XXIII. CAUSES OF DEATH AND OF DISABILITY.

The analysis made in the following tables and diagrams is an inquiry into the conditions responsible for the deaths and the disabilities. The study of cause for the death group is not satisfactory since, as has been pointed out, the group is very restricted. The cause of disability study, however, gives a complete exposure of cases with the exception of those temporarily disabled who recovered in military hospitals, and of those who died before discharge having no dependent relatives in the permitted class.

## COMPENSATION—DEATH AND DISABILITY CASES.

TABLE 73.—*Causes of death and disability.*

Cause.	Death.	Disability.						Total death and disability.
		Perma- nent total with or without nurse.	Perma- nent partial.	Tempo- rary total with or without nurse.	Tempo- rary partial.	Receiv- ing voca- tional training.	Total.	
Disease or injury.....	21		4	27	4	1	39	60
TRAUMATISMS.								
Accidents.....	44	1	34	123	19	14	191	235
Action, killed or wounded in.....	8,661	65	607	8,547	907	502	10,628	19,232
Airplane.....	142	1	5	62	11	11	93	235
Ammunition.....	41	5	27	161	12	32	240	281
Animals, injured by.....	15	4	14	181	39	23	261	276
Athletics.....	1		1	66	26	15	111	115
Automobile and truck.....	88	2	14	296	36	18	276	364
Balloon.....	1	1			1	1	3	4
Bayonet.....	2	1		6	1	1	9	11
Chemicals.....	4			6	1	1	8	12
Conflagrations.....	12		1	8			9	21
Cold, excessive.....	1			23	1	1	25	26
Drill.....	1		8	87	16	4	115	116
Drowning.....	101							101
Explosion.....	59	2	13	91	6	16	128	187
Fall of objects.....	14	1	11	118	17	26	173	187
Fall of persons.....	37	1	27	444	164	48	684	721
Foreign objects.....	175		10	61		4	75	250
Gas, poisonous.....	78	8	6	1,075		61	1,150	1,228
Gun-shot wounds.....	79		57	384	48	29	518	597
Injuries.....	54	4	54	609	90	62	819	873
Lost at sea.....	515							515
Machinery.....	5		11	30	7	4	52	57
Construction machinery.....			1	2	1		4	4
Factory machinery.....			1	1			2	2
Loading and unloading machinery.....	2		2	7			9	11
Lumbering machinery.....			1	5	1	1	8	8
Missing in action.....	6							6
Motorcy cle.....	25		1	101	12	12	129	154
Murder.....	9							9
Poisoning.....	13	1		7	2	1	11	24
Railroad train (steam and electric).....	94	19	33	166	10	23	242	336



TABLE 73.—*Causes of death and disability—Continued.*

Cause.	Death.	Disability.					Total.	Total death and disability.	
		Perma- nent total with or with- out nurse.	Perma- nent par- tial.	Tem- porary total with or with- out nurse.	Tem- porary par- tial.	Re- ceiv- ing voca- tional train- ing.			
TRAUMATISMS—continued.									
Shell shock .....	4	.....	2	89	8	6	105	109	
Shot .....	47	.....	16	52	5	10	83	130	
Strangulations .....	2	.....	.....	.....	.....	.....	.....	2	
Suicide .....	38	.....	.....	.....	.....	.....	.....	38	
Wagon, animal-drawn .....	4	.....	2	20	6	1	29	33	
DISEASES.									
Disease .....	61	.....	1	28	4	1	34	95	
Abscess .....	42	.....	4	116	13	9	142	184	
Alcoholism .....	3	.....	.....	5	.....	1	6	9	
Anthrax .....	1	.....	.....	.....	.....	.....	.....	1	
Apoplexy, cerebral hemorrhage .....	32	1	.....	4	2	.....	7	39	
Apoplexy, pulmonary .....	5	1	.....	1	.....	.....	2	7	
Appendicitis .....	111	.....	2	120	6	6	134	215	
Asthma .....	2	1	1	137	20	9	168	170	
Bladder, diseases of .....	4	.....	.....	16	5	2	23	27	
Bones, diseases of (other than tuberculosis) .....	8	.....	5	138	19	12	174	182	
Bright's disease .....	95	16	.....	256	21	16	309	404	
Bronchitis .....	22	.....	1	306	39	12	358	380	
Cancer and other tumors .....	38	12	2	263	2	3	282	320	
Circulatory system, other diseases of .....	47	7	.....	.....	35	16	58	105	
Diabetes .....	37	11	.....	1	12	7	31	68	
Digestive system (except cancer and tuber- culosis) .....	46	1	.....	143	17	9	170	216	
Diphtheria .....	36	.....	1	7	2	1	11	47	
Ears, diseases of .....	12	.....	21	322	39	33	415	427	
Endocarditis .....	17	.....	2	180	10	6	198	215	
Epilepsy .....	9	.....	.....	130	19	3	152	161	
Eyes, diseases of .....	.....	18	21	339	50	17	448	448	
Gangrene .....	7	3	1	10	2	.....	16	23	
Genito-urinary system .....	.....	.....	.....	12	1	1	14	14	
Gonococcus infection .....	3	.....	1	21	4	2	28	31	
Heart, diseases of .....	167	23	37	1,892	281	151	2,384	2,551	
Hernia .....	17	2	5	243	37	14	301	318	
Influenza and pneumonia .....	5,302	6	1	224	20	5	256	5,558	
Influenza .....	260	.....	1	73	7	.....	81	341	
Joints, diseases of .....	.....	.....	12	498	70	28	608	608	
Kidneys, other diseases of .....	17	1	1	65	7	3	77	91	
Liver, diseases of .....	9	3	.....	14	2	1	20	29	
Locomotor ataxia .....	1	.....	.....	3	.....	.....	3	4	
Malaria .....	7	.....	.....	1	.....	.....	1	8	
Malformations .....	.....	1	.....	127	21	12	161	161	
Measles .....	16	2	1	33	5	2	43	59	
Measles and pneumonia .....	325	.....	.....	52	1	2	55	380	
Meningitis .....	512	3	7	268	33	22	333	875	
Mental alienation .....	22	12	1	756	33	11	813	835	
Nervous system, other diseases of .....	18	6	3	369	39	16	433	451	
Neuritis and neuralgia .....	3	3	.....	60	7	6	76	79	
Nose, diseases of .....	1	.....	.....	16	2	.....	18	19	
Paralysis .....	8	5	1	111	10	3	130	138	
Pericarditis .....	10	1	.....	19	.....	1	21	31	
Peritonitis .....	45	1	.....	9	.....	1	11	56	
Pleurisy .....	44	.....	.....	263	88	19	370	414	
Pneumonia .....	6,621	6	5	583	.....	29	623	7,217	
Pott's disease .....	.....	3	.....	7	1	.....	11	11	
Pyæmic infection—septicaemia .....	61	.....	18	61	15	6	103	164	
Respiratory system, other diseases of .....	17	1	1	110	14	3	129	146	
Rheumatism .....	7	1	5	363	66	38	473	480	
Scarlet fever .....	45	.....	.....	13	1	2	16	61	
Skin, diseases of .....	11	.....	1	19	2	.....	22	33	
Smallpox .....	1	.....	.....	1	.....	.....	1	2	
Spleen, diseases of .....	2	2	.....	6	.....	.....	8	10	
Stomach, diseases of (except cancer) .....	17	6	.....	66	17	7	96	113	
Syphilis .....	14	.....	.....	80	12	5	97	111	
Tuberculosis meningitis .....	21	.....	.....	4	.....	1	5	26	
Tuberculosis, lungs .....	389	166	2	4,641	359	155	5,323	5,715	
Tuberculosis, all other (except Pott's disease) .....	54	4	1	166	18	6	195	249	
Typhoid fever .....	33	.....	1	3	2	.....	6	59	
Miscellaneous diseases .....	21	2	8	82	13	7	112	136	
No cause recorded .....	28	1	2	33	10	3	49	77	
Total .....	25,251	439	1,149	26,664	2,968	1,656	32,876	58,127	

The study of the causes of disabilities is made graphically in diagram 70. This shows that those wounded in action constitute far the largest group. Tuberculosis, including pulmonary, meningeal and general tuberculosis, ranks second as a causative agent for disability. It is probable that many of these cases were tuberculous prior to enlistment and that conditions resulting from service reactivated them. Heart diseases and the results attendant upon being gassed in action also stand numerically prominent. Here again the disease tendency, or traces of the disease were possibly undetectable at the time the person was accepted for service. A total of nearly 33,000

### Causes of Disability.

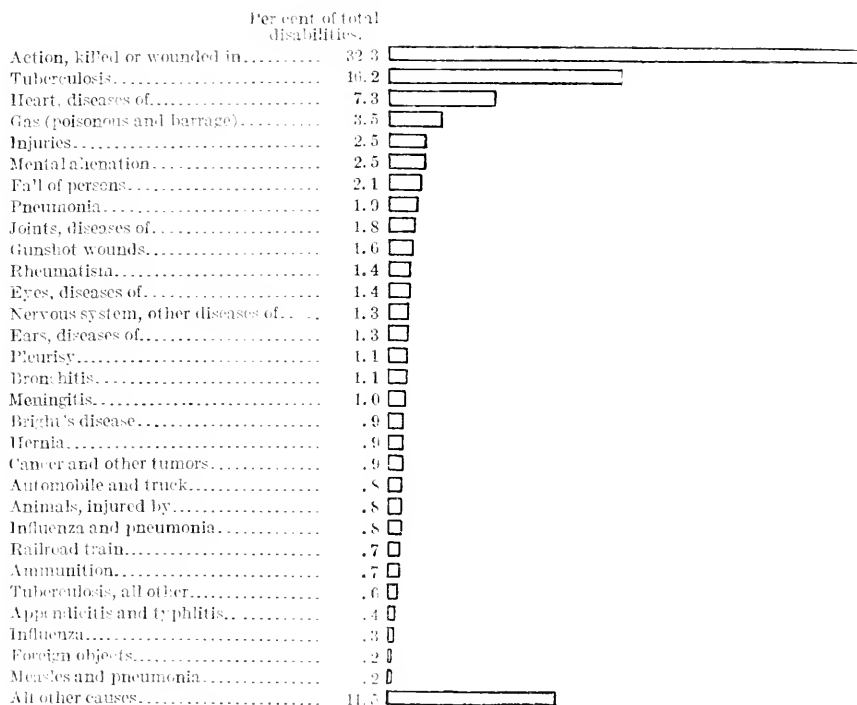


DIAGRAM 70.—Causes of disability in cases when compensation claims have been awarded.

disabilities for which claim has been entered and for which compensation has been granted comprises the exposure under observation, and roughly these disabilities may be distributed between traumatism causes, accounting for about 16,000, and disease causes, accounting for about 17,000. Further, the traumatisms consist of about 10,500 "wounded in action" cases and 5,500 cases disabled through accidents. In the latter group inhalation of poisonous gases accounts for over 1,000. The 17,000 disabilities due to diseases may be classified as follows: Tuberculosis of the lungs 5,500; diseases of the heart, 2,500; mental and nervous diseases, 1,500; eye and ear diseases, 1,000; diseases of the joints (including rheumatism), 1,000; and miscellaneous diseases, 5,500.

Diagram 71 shows strikingly that certain diseases which are prominent as causes of death are minor factors in causing disability, and vice versa. It is interesting to note that, while traumatism accounts for 46 per cent of the deaths of the insured, they account

### Principal Causes of Death and Disability.

	Per cent of total Death.	Disabil- ity.
Influenza and pneumonia....	95.4	4.6
Pneumonia.....	91.4	8.6
Action, killed or wounded in.....	44.9	55.1
Tuberculosis—lungs.....	6.8	93.2
Heart, diseases of.....	6.5	93.5
Cas.....	6.4	93.6
Cars, diseases of.....	2.8	97.2
Mental alienation.....	2.6	97.4
Rheumatism.....	1.5	98.5
Joints, diseases of.....	100.0	100.0
Eyes, diseases of.....	100.0	100.0

DIAGRAM 71.—Analysis of selected traumatism and diseases showing the percentages of death and the percentages of disability for each group in cases for which compensation claims have been awarded.

or 49 per cent of the disabilities of those compensated for disability. In general it may be said that causes as applied to disabilities are not of as much interest as the location of the disability and the condition in which the disabled person is left.

### XXIV. RANK IN THE ARMY AND MARINE CORPS.

To the ranks of the Army and the Marine Corps are to be traced 53,872 of the 58,127 compensated deaths and disabilities. It is with these two branches of the service that the study of rank has concerned itself. The following table supplies the numerical statement of those suffering death or disability in each rank.

#### COMPENSATION—DEATH AND DISABILITY CASES.

TABLE 74.—Rank of members of the Army and Marine Corps.

Rank.	Death.	Disability.						Total death and disability.
		Perma- nent total with or without nurse.	Perma- nent partial.	Tempo- rary total with or without nurse.	Tempo- rary partial.	Receiving voca- tional training.	Total.	
Private.....	18,416	305	866	20,149	2,174	946	21,440	42,856
Sergeant.....	1,796	22	118	2,277	259	179	2,855	4,651
Corporal.....	1,430	37	70	1,825	232	182	2,346	3,776
Private.....	13			9	4		13	26
Second lieutenant.....	394	3	12	178	25	32	250	644
First lieutenant.....	646	6	9	233	37	23	308	954
Captain.....	387	3	4	159	27	11	204	591
Major.....	111	1	1	21	3		26	140
Lieutenant colonel.....	33			9	1		10	43
Colonel.....	27			10	1		11	38
General.....	4							4
No rank recorded.....	72	3		72	2		77	149
Total.....	23,332	380	1,080	24,942	2,765	1,373	30,540	53,872

The privates lead in each of the various extents of disability, with those permanently and totally disabled 80 per cent, those permanently and partially disabled 80 per cent, those temporarily and totally disabled 80 per cent, and those temporarily and partially disabled 79 per cent of the total in each respective disability group. The percentage for each rank of the total compensation experience is given in diagram 72.

Army and Marine Corps Rank.

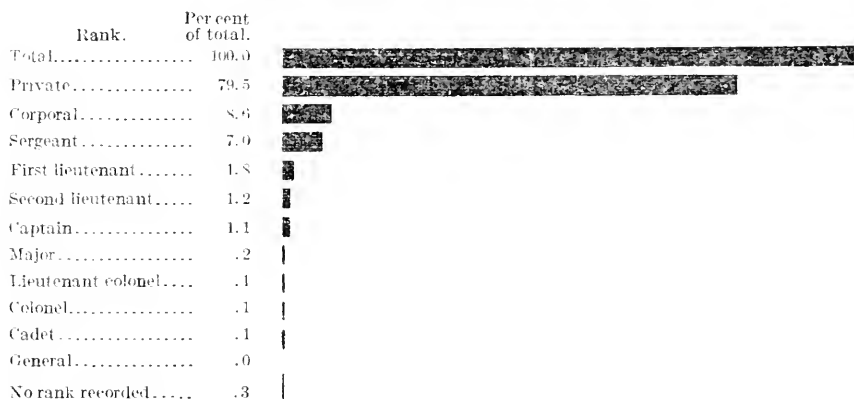


DIAGRAM 72.—Compensation claims awarded for death and disability separated according to ranks of members of the Army and Marine Corps.

## XXV. COUNTRY OF DEATH OR DISABILITY.

Table 75 presents the numerical quota attributable to each of the countries in which the deaths and the disabilities compensated occurred. France led with 16,186 disabilities out of a total of 32,876 cases. The United States, the fatalities and accidents recorded as occurring "at sea," and Belgium are the next largest groups in the order named.

### COMPENSATION—DEATH AND DISABILITY CASES.

TABLE 75.—Country in which the death or the disability occurred.

Country.	Death.	Disability.	Total.
United States and possessions.....	14,160	12,505	22,665
France.....	12,876	16,186	29,062
At sea.....	1,230	720	1,950
British Isles.....	274	156	430
Northern Russia and Siberia.....	50	21	71
A. E. F. (not otherwise specified).....	131	101	232
Italy.....	21	16	37
Belgium.....	62	252	314
Germany.....	133	121	257
Austria.....	4	.....	4
No country recorded.....	310	2,752	3,062
Total.....	25,251	32,876	58,127

## XXVI. TERMINATIONS OF COMPENSATION AWARDS.

Compensation awards may be terminated at any time when the conditions for which they were made cease. The reasons for their terminations are shown in Table 76, together with the number of

cases included under each. The death of an awardee or beneficiary refers to either the person disabled in the service or to the dependent relative. The termination is effected only when there is no other dependent relative in receipt of compensation. An awardee who is no longer dependent refers to mothers and fathers, as other reasons operate to make a wife or a child independent. It happens that in no disability cases has the mother or the father ceased to be dependent.

#### COMPENSATION—DEATH AND DISABILITY CASES.

TABLE 76.—*Cases for which the award has been terminated distributed by reason for termination.*

Reasons for termination.	Death.		Disability.		Total.	
	Number.	Monthly payment.	Number.	Monthly payment.	Number.	Monthly payment.
Awardee died.....	92	\$2,152.50	520	\$18,367.80	612	\$20,520.30
Awardee no longer dependent.....	126	2,630.00			126	2,630.00
Wife remarried.....	181	4,808.50			181	4,808.50
Awardee of age.....	2	62.50			2	62.50
Awardee misconduct.....	7	170.00	8	265.00	15	435.00
Disability ceased.....			4,808	153,810.01	4,808	153,810.01
No reason recorded.....	15	432.50	23	809.90	39	1,332.40
Total.....	424	10,256.00	5,359	173,342.71	5,783	183,598.71

#### Reasons for Termination of Awards in Death Cases.

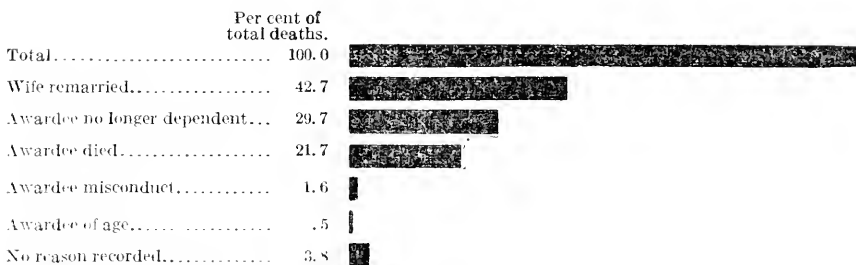


DIAGRAM 73.—Analysis of the reasons monthly payments have been terminated in compensation claims awarded on account of death.

Diagram 73 presents the reasons for the termination of death cases together with the graphic comparison of the groups, while diagram 74 shows the reasons and the comparison of groups in disability cases.

#### Reasons for Termination of Awards in Disability Cases.

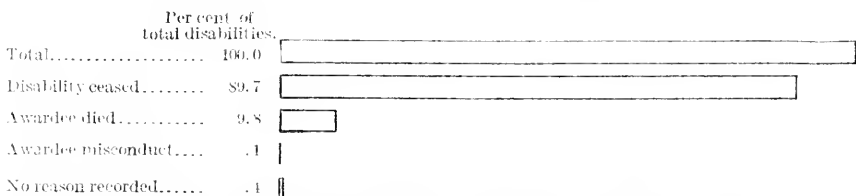


DIAGRAM 74.—Analysis of the reasons monthly payments have been terminated in compensation claims awarded on account of disability.

## COMPENSATION—DEATH AND DISABILITY CASES.

TABLE 77.—*Cases for which awards have been terminated distributed by the date of termination.*

Date of termination.	Disability.										Total death and disability.		
	Death.					Temporary total with or without nurse.						Total.	
	Num-ber.	Monthly payment.	Num-ber.	Monthly payment.	Num-ber.	Monthly payment.	Num-ber.	Monthly payment.	Num-ber.	Monthly payment.			
1917.													
November.....		1	\$30.00			8	\$955.00			9	\$955.00	9	\$295.00
December.....		3	90.00			27	1,100.00	1	22.50	31	1,212.50	31	1,212.50
1918.													
January.....		1	30.00			51	1,745.00			55	1,775.00	55	1,775.00
February.....	\$10.00	1	30.00			82	2,700.00	1	6.75	81	2,776.75	81	2,816.75
March.....	20.00	3	90.00			126	4,165.17			138	4,495.85	139	4,423.85
April.....	172.50	12	500.00			480	6,075.00	5	50.42	497	6,681.42	503	6,806.92
May.....	100.00	4	240.00			149	4,815.00	13	201.80	179	5,280.80	174	5,380.80
June.....	75.00	3	230.00			174	5,790.00	15	248.42	197	6,388.42	200	6,413.42
July.....	330.00	8	310.00			234	7,900.00	38	580.28	280	8,770.28	295	9,100.38
August.....	536.00	7	310.00	1	\$18.00	234	7,790.50	38	522.10	280	8,559.60	305	9,085.60
September.....	110.00	11	510.00			210	7,457.00	30	478.61	281	8,495.61	303	9,105.61
October.....	710.00	22	745.00			252	8,210.00	38	570.63	313	9,575.63	317	10,315.63
November.....	500.00	15	500.00	2	21.00	178	6,429.50	27	377.81	222	7,401.81	255	7,778.01
December.....	850.00	25	975.00	1	1.80	290	6,590.00	51	451.00	296	7,497.80	295	8,807.80
1919.													
January.....	850.00	22	885.00			198	6,780.00	16	227.07	237	7,829.07	272	8,712.07
February.....	6.00	11	510.00	2	27.00	323	10,820.00	21	293.65	329	12,230.65	395	12,820.65
March.....	1,215.00	15	615.00			358	13,283.50	24	411.95	393	14,241.95	406	14,188.75
April.....	4,102.50	11	615.00			711	22,784.70	24	403.71	781	23,902.61	828	24,694.31
May.....	1,435.00	7	430.00	2	45.50	378	12,930.50	28	510.27	654	21,326.67	709	22,701.17
June.....	880.00	1	101.00	1	18.00	190	5,363.00	13	132.00	183	6,131.00	216	7,014.00
Total.....	10,256.00	132	7,945.00	9	131.30	4,670	155,284.57	400	5,717.67	5,359	173,342.71	5,783	182,508.74

Remarriage of a widow or a child becoming of age affects only death cases, since in a disability case the disabled person would still be compensated. Awards in disability cases may only be changed for these reasons. Misconduct of the disabled or proof that an awardee is morally undeserving will terminate a compensation award. The recovery of disabled persons is responsible for the closing of almost 90 per cent of the terminated cases, and the death of the disabled person has closed nearly 10 per cent.

The dates on which the 5,783 cases have been terminated is presented in Table 77.

Comparison of groups of terminated cases with those cases upon which awards are actively running is made for the beneficiary groups. Table 78 shows those beneficiaries who are still receiving compensation and those whose awards have been terminated, considering exclusively cases which have been judged compensable because of the death of the person in the service. Of the 205 wives whose compensation was discontinued 181 were remarried, while the remaining 24 either died, were undeserving or there was no reason recorded for the action taken. Similarly other groups might be analyzed.

#### COMPENSATION—DEATH CASES.

TABLE 78.—*Relationship of beneficiary to the deceased showing awards still being paid and those terminated.*

Beneficiary relationship.	Active.		Terminated.	
	Number.	Monthly payment.	Number.	Monthly payment.
Wife.....	6,972	\$174,497.46	205	\$5,121.00
Child.....	430	8,516.25	2	40.00
More than 1 child.....	139	4,513.70		
Mother.....	7,852	159,980.25	152	3,112.50
Father.....	1,453	30,142.50	24	485.00
Grandmother.....	2	77.50		
Grandfather.....	2	55.00		
Sister.....	24	1,110.00		
Brother.....	6	316.25		
Wife, child.....	3,283	114,879.74	17	595.00
Wife and more than 1 child.....	1,246	55,438.97	10	425.00
Wife, mother.....	357	15,955.00	1	45.00
Mother, child.....	38	1,488.75		
Mother and more than 1 child.....	8	440.00		
Mother, father.....	2,617	78,870.00	12	300.00
Mother, sister.....	1	30.00		
Wife, child, mother.....	109	6,005.00		
Wife, mother and more than 1 child.....	43	2,762.50		
Wife, others.....	197	10,853.00	1	72.50
Child, others.....	34	1,427.50		
Mother, others.....	7	275.00		
Father, others.....	7	312.50		
Total.....	24,827	667,948.87	424	19,256.00

Table 79 presents those awardees who in combination with the disabled person are receiving compensation and those whose awards have been terminated. When the disabled person recovers, the awards made to all dependents are terminated as is the award he has been drawing. The 551 cases where compensation was discontinued for death and for misconduct of awardee, and those with no reason recorded as given in Table 76, were cases of the disabled alone receiving benefits. Otherwise the award will continue to the remaining beneficiary. They are included among the 4,402 cases in Table 79.

## COMPENSATION—DISABILITY CASES.

TABLE 79.—*Relationship of the beneficiary to the disabled showing awards still being paid and those terminated.*

Beneficiary relationship.	Active.		Terminated.	
	Number.	Monthly payment.	Number.	Monthly payment.
Self.....	22,249	\$632,879.56	4,402	\$129,413.98
Self, wife.....	2,295	97,034.19	472	20,319.41
Self, child.....	67	2,579.24	19	758.00
Self and more than 1 child.....	40	2,121.00	5	275.00
Self, mother.....	957	36,518.48	169	6,575.48
Self, father.....	79	2,918.93	11	497.90
Self, sister.....	1	30.00		
Self, wife, child.....	1,011	54,948.73	173	9,094.20
Self, wife and more than 1 child.....	467	30,631.11	75	4,798.77
Self, child and mother.....	4	175.00	2	100.00
Self, mother and more than 1 child.....	1	60.00	1	60.00
Self, father and mother.....	249	11,783.03	23	1,105.00
Self, others.....	94	5,238.31	7	435.00
Total.....	27,517	876,919.58	5,359	173,342.74

Table 80 summarizes the facts with regard to active and terminated cases compensated for death and for the various extents of disability. Although by far the largest number of cases closed have been among the temporarily and totally disabled persons, this is not the group having the largest percentage of terminations, for nearly 44 per cent of the permanent total disability cases have been terminated while only 18 per cent of the temporary total disability cases have been terminated.

## COMPENSATION—DEATH AND DISABILITY CASES.

TABLE 80.—*Summary of cases upon which awards are still being paid and those which have been terminated.*

	Active.		Terminated.		Total.	
	Num-ber.	Monthly payment.	Num-ber.	Monthly payment.	Num-ber.	Monthly payment.
Death.....	24,827	\$667,948.87	424	\$10,256.00	25,251	\$678,204.87
Permanent total, with or without nurse.....	217	19,714.50	192	7,945.00	439	27,659.50
Permanent partial.....	1,140	12,343.63	9	131.30	1,149	12,444.93
Temporary total, with or without nurse.....	21,901	734,901.63	4,670	155,281.57	26,664	890,183.20
Temporary partial.....	2,568	37,244.31	400	5,717.07	2,968	42,961.38
Receiving vocational training.....	1,568	72,715.51	88	4,267.80	1,656	77,013.31
Total.....	52,311	1,511,868.45	5,783	183,598.74	58,127	1,728,467.19

## Deaths and Disabilities.

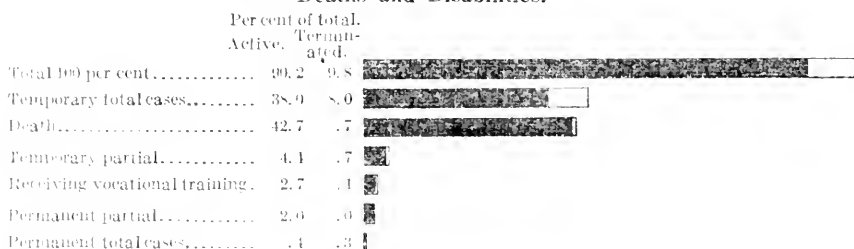


DIAGRAM 75.—Compensation claims awarded on account of death or of various extents of disability showing those upon which payments have been terminated and those upon which payments are still being made.



Diagram 75 is in representation of Table 80, making a comparison of cases active with those terminated in death cases and the various disability cases.

### XXVII. TOTAL DISABILITIES.

Total disabilities are divided into two classes, those disabling permanently and those disabling temporarily. The basis for the compensation award is the same for both. The latter group, however, is reviewed each month. Men who are helpless and bedridden are given an allotment for a nurse. Of the 27,103 total disabilities, 63 have had nurses. Table 81 presents these facts, showing that 21 of them were permanent total disabilities, and 42 were temporary disabilities, and of these cases 17 have terminated. All the 192 terminated permanent total disabilities died, while comparatively few of the terminated temporary total disabilities have died, the remaining ones having recovered. These 192 deaths have caused the awards to be terminated, and 48 additional deaths of permanent total disabilities were included in the 177 disability cases changed to death cases and awarded compensation. The permanent total disability group of 439 cases has within it a smaller group of 199 comprising those persons who have lost both hands, both feet, or who are totally blind, or who are totally helpless and permanently bedridden. All such disabilities are awarded \$100 compensation.

#### COMPENSATION—PERMANENT AND TEMPORARY TOTAL DISABILITY CASES.

TABLE 81.—*The active and terminated cases indicating those for which there is an attendant nurse.*

Claims.	Permanent total.			Temporary total.			Permanent total and temporary total combined.		
	Without nurse.	With nurse.	Total.	Without nurse.	With nurse.	Total.	Without nurse.	With nurse.	Total.
Active.....	230	17	247	21,965	29	21,994	22,195	46	22,241
Terminated.....	188	4	192	4,657	13	4,670	4,845	17	4,862
Total.....	418	21	439	26,622	42	26,664	27,040	63	27,103

#### COMPENSATION.

TABLE 82.—*Showing original awards for permanent and total disability.*

	Original awards.	Awards June 30, 1919.	\$100.00 awards.	\$30.00 awards.
Changing to death awards.....	48			
Terminated altogether by death.....	192	192	33	159
Total deaths since original award.....	240			
Still alive and receiving award.....	247	247	166	81
Total.....	487	439	199	240

Table 82 makes a study of the entire permanent total disability group showing the physical condition existing and indicating those to whom \$30 awards were made and those to whom \$100 awards were made. Diagram 76 presents for comparison a grouping of the 439 permanent disabilities, according to the major injury or disease.

In comparing the permanently and totally disabled group of 439 cases in the compensation experience with the permanently and totally disabled group of 565 cases in the insurance experience it is noted that the latter is the larger. This warrants explanation since it would appear that the former should exceed. The 565 cases in the insurance group covers 25 disabilities occurring prior to October 6, 1917, before which time disabilities were not compensable. Moreover, 48 permanent total disabilities first awarded compensation, later died, and in this experience have been considered in the death group with the exception of the presentation in Table 70. Therefore 510 disabilities have been awarded insurance and 487 disa-

#### 439 Permanent Total Disabilities.

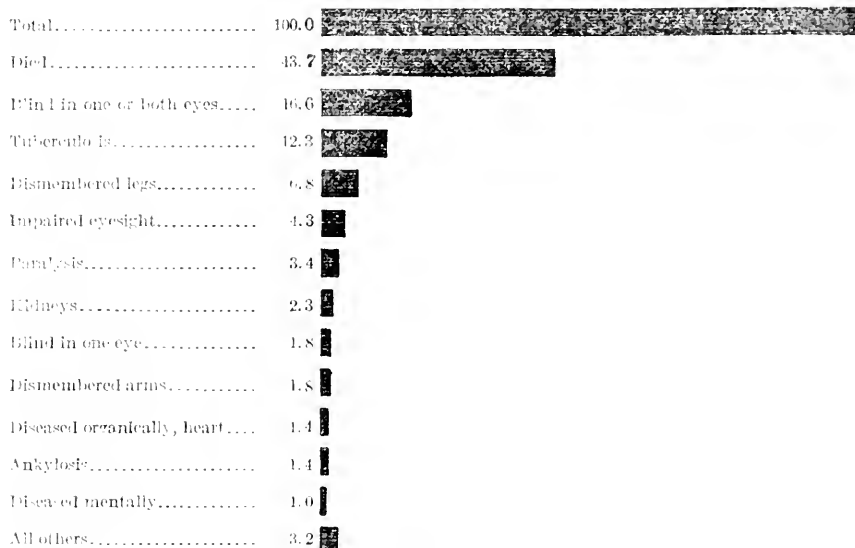


FIGURE 76.—The total number of permanent and total disability cases upon which compensation has been awarded, showing those diseased, those injured, and those deceased.

bilities have been awarded compensation during the same period of time.

When it is remembered that a permanent total disability, if insured, is entitled to insurance award while still in a military or a naval hospital but is not entitled to compensation until discharged from the service, it is evident that many of the insured who die or who are still in hospitals after receiving insurance awards have never become compensable cases. Further it occurs that persons are classified as temporary total disabilities for the compensation award until decision is reached that the case is a permanent total disability at which time only may insurance be awarded. Since the compensation award is the same for temporary total disabilities as for permanent total disabilities the classification for compensation is sometimes unchanged even after the insurance is awarded. Therefore, those disabilities receiving insurance awards while still in the service, or in case of their dying in the service after insurance was awarded, and those disabilities receiving insurance but classified as temporary total disabilities under the compensation experience, ac-

count for the excess of the insurance disabilities over the permanent total compensation disabilities.

The temporary total disabilities will very soon change to some other classification and as a consequence it is of small interest to make a very detailed study of them. It is pertinent, however, to show the present condition of the large group of disabilities which at present compose this class. Diagram 77 shows that almost 40 per cent were externally injured exclusive of those blind or with impaired sight and those who have either died or recovered.

28,320 Temporary Total Disabilities.

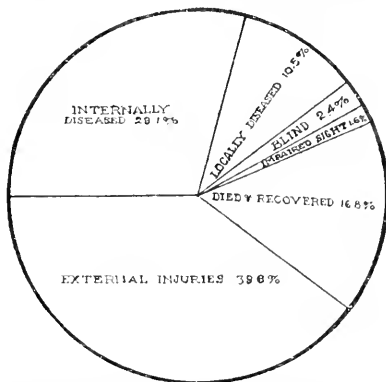


DIAGRAM 77.—The total number of temporary and total disability cases which have been awarded compensation, showing those diseased, those injured, and those deceased and recovered, including those who have accepted vocational training.

#### XXVIII. PARTIAL DISABILITIES.

The separation of permanent partial disability cases according to the physical conditions is made by means of the following diagram.

1,149 Permanent Partial Disabilities.

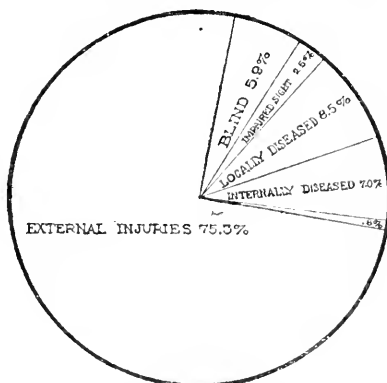


DIAGRAM 78.—The total number of permanent and partial disability cases upon which compensation awards have been made, showing those diseased, those injured, and those deceased and recovered.

That fully three-fourths of the permanent partial disability cases have resulted from external injury is characteristic of the class. Those blind in one eye and those with impaired eyesight form another group

of 8.4 per cent. Locally and internally diseased cases make up a group consisting of all the remaining cases with the exception of the 9 cases of disability who have died or recovered.

The partial disabilities are assigned a proportional rating of disability after a physical examination, and by means of this and with the total disability award as a basis, the monthly compensation is determined. Table 83 presents the 1,149 permanent partial disability cases classified according to the ratings of physical impairment. It gives also the ratings of the 9 terminated cases.

#### COMPENSATION—PERMANENT PARTIAL DISABILITY CASES.

TABLE 83.—*Degrees of permanent disability, showing those awards still being paid and those terminated.*

Per cent.	Active.		Terminated.		Total.	
	Number.	Monthly payment.	Number.	Monthly payment.	Number.	Monthly payment.
10-11.....	319	\$1,183.56	2	\$12.02	321	\$1,195.58
15-19.....	119	818.16			119	818.16
20-24.....	146	1,132.65			146	1,132.65
25-29.....	69	592.92	1	20.28	70	613.20
30-34.....	84	897.45			84	897.45
35-39.....	18	210.45			18	210.45
40-44.....	55	732.72	2	30.00	57	762.72
45-49.....	11	165.56			11	165.56
50-54.....	56	906.66	1	15.00	57	921.66
55-59.....	12	232.31			12	232.31
60-64.....	104	2,105.13	3	54.00	107	2,159.13
65-69.....	15	342.98			15	342.98
70-74.....	4	119.00			4	119.00
75-79.....	16	417.14			16	417.14
80-84.....	23	658.75			23	658.75
85-89.....	4	114.75			4	114.75
90-94.....	33	1,015.45			33	1,015.45
95-99.....	22	667.99			22	667.99
Total.....	1,140	12,313.63	9	131.30	1,149	12,444.93

Table 84 gives a complete analysis of the physical conditions of those permanently and partially disabled.

#### COMPENSATION—PERMANENT PARTIAL DISABILITY CASES.

TABLE 84.—*Showing permanently and partially disabled cases, according to condition at time of last award, also indicating whether active or terminated.*

	Active.	Terminated.	Total active and terminated.
Blind in one eye (72):			
One eye only.....	68	1	69
One eye with other disability.....		3	3
Impaired eyesight—both eyes (29).....	29		29
External injuries (568):			
Amputations (226)—			
One arm.....	27		27
Finger or fingers.....	180		180
One leg.....	19		19
Dismemberments (184)—			
One arm.....	33	1	34
One leg.....	8		8
Other than above.....	140	2	142
Other major injuries (22).....			
Paralysis—partial.....	11		11
Loss of use—total.....	8		8
Minor injuries (436)—			
Adhesions.....	6		6
Burned.....	1		1
Deformed.....	14		14
Dislocated.....	3		3

TABLE 84.—*Showing permanently and partially disabled cases, according to condition at time of last award, also indicating whether active or terminated—Continued.*

	Active.	Terminated.	Total active and terminated.
External injuries—Continued.			
Minor injuries—Continued.			
Flat feet.....	17	.....	17
Fracture—both arms.....	1	.....	1
Fracture—one arm.....	6	.....	6
Fracture—both legs.....	1	.....	1
Fracture—one leg.....	9	.....	9
Fracture—skull.....	4	.....	4
Infected.....	2	.....	2
Injured.....	271	.....	271
Lacerated.....	1	.....	1
Loss of use—partial.....	91	.....	91
Ruptured.....	4	.....	4
Shortened limbs.....	2	.....	2
Sprains and strains.....	3	.....	3
Locally diseased (98):			
Ankylosis—one or both arms.....	31	.....	31
Ankylosis—one or both legs.....	13	.....	13
Diseased—constitutionally.....	9	.....	9
Diseased—locally.....	16	.....	16
Ears, deaf—total.....	2	.....	2
Ears, deaf—partial.....	27	.....	27
Internally diseased (82):			
Deficient mentally.....	5	.....	5
Diseased—mentally.....	.....	1	1
Diseased—organically, tuberculosis.....	75	.....	75
Diseased—organically, heart.....	.....	1	1
Total.....	1,140	9	1,149

Table 85 gives in detail the classification of all the disabilities according to the physical condition and the anatomical part affected.

This tabulation effects also a separation of those cases active and those terminated. The latter group is separated further into those

#### Deaths and Recoveries.

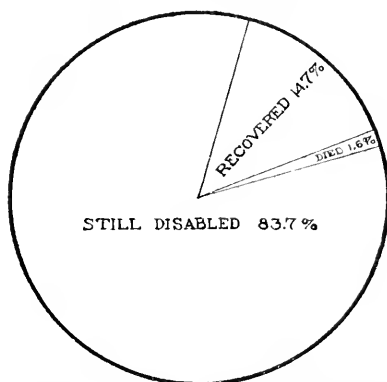


DIAGRAM 79.—The disabled to whom compensation awards have been made, separated into those who have since died, those who have since recovered, and those who are still alive.

who have died and those who have recovered. In this classification the 8 disabled whose awards were terminated because of their misconduct were treated as recovered. The 23 cases where no reason for termination was recorded were also classified in the same group. All classes of disability are included in the graphic analysis presented in diagram 79 and separated into those who have recovered, those who have died and those who are still alive.

## COMPENSATION—DISABILITY CASES.

TABLE 85.—*Showing active cases, together with those terminated, by extent of disability and condition at time of last award, also indicating the reason for termination of award.*

	Active.			Terminated.		
	Permanent total.	Permanent partial.	Temporary total, including vocational training cases.	Total active.	Died since award.	Recovered.
<b>Blind (851):</b>						
Eyes, both blind.....	73			73	1	
Eye, one blind.....	5	68	667	761		1
Eye, one blind with one eye impaired.....	3		1	6	10	10
Eye, one blind with other disability.....				3		6
Impaired eyesight (559):						3
Eyes, both.....	16	29	457	541		15
Eyes, both with other disability.....	3			3		
<b>External injuries (15,165):</b>						
<b>Amputations (1,134):</b>						
One arm.....		27	275	303		
Finger or fingers.....		180	573	817		12
Two legs.....	7			7		7
One leg with minor disability.....		19	273	295		
Dismembersments (1,368)						
Two arms.....	2			2		
One arm with other disability.....	1		1	1		
One arm.....	33		372	409		49
One arm with other disability.....	8		2	10		10
Arm and leg.....	4			4		4
Two legs.....	12			12		12
One leg with minor disability.....	3	8	381	392		391
One leg with other disability.....	1		1	5	2	2
Other than above.....		110	332	519	2	12
Other major injuries (535)						
Loss of use—total.....	1	8	58	68		68
Paralysis—partial.....		11	397	450	6	456
Paralysis with other disability.....	9		1	10	1	11
<b>Minor injuries (11,298):</b>						
Adhesions.....		6	177	292	3	16
Burned.....		1	37	2		12
Reformed.....		14	412	457	3	476
Dislocated.....		3	74	8		8
Flat feet.....		17	199	256	24	280

Fracture—two arms.....	1	4	1	6			6
Fracture—one arm.....	6	141	13	160		4	164
Fracture—two legs.....	1	6		7			7
Fracture—one leg with minor disability.....	9	210	30	250		11	261
Fracture—skull.....	4	46	6	56			56
Fracture—other than above.....		1		1			1
Infected wound.....	2	30	6	38		9	47
Injured.....	271	5,651	841	6,763	28	1,429	8,220
Lacerated.....	1	32	2	35			35
Loss of use—partial.....	4	1,164	132	1,391	4	59	1,451
Ruptured.....	2	256	33	295	30	30	325
Shortened limbs.....	2	35	4	41		4	45
Sprains and strains.....	3	76	9	88		5	93
Locally diseased (3,770):							
Ankylosed—arms.....	31	405	41	477		13	490
Ankylosed—legs.....	13	394	29	436	1	21	458
Ankylosed—general.....		1		7			7
Diseased—constitutionally.....	9	712	118	839	30	100	969
Diseased—locally.....	16	1,012	113	1,141	27	122	1,280
Ears—both deaf, total.....	2	25	2	29			29
Ears—both deaf, partial.....	27	435	42	504		21	525
Paralysis, total.....	2			2			2
Internally diseased (12,528):							
Diseased mentally.....		676	25	705	34	62	801
Diseased nerves.....	4	366	35	401	7	33	441
Diseased organically—tuberculosis.....	51	4,993	461	5,583	302	2,796	8,681
Diseased organically—tuberculosis, influenza, and pneumonia.....	6	3	2	11			11
Diseased organically—heart.....	6	1,761	285	2,042	28		2,089
Diseased organically—kidneys.....	10	358		368	23		391
Diseased organically—liver.....	1			1	3		4
Diseased organically—stomach.....					5		5
Deficient mentally.....	1	79	9	94	10	10	114
Total.....	217	23,562	2,568	27,517	520	4,839	32,876

It is noted in Table 85 that about one-sixth of the cases have died or recovered—mostly recovered—about two-fifths have external injuries, one-fourth are internally diseased, and one-tenth locally diseased, and that in the remaining 4 per cent the eyes are affected. Diagram 77 shows practically the same ratios for the 28,320 temporary total disability cases, indicating that the distribution of these cases was similar.

If the died and recovered groups are divided according to their previous condition, we increase the quota of the internally diseased from 28 per cent to 38 per cent and the externally injured from 41 per cent to 46 per cent and the other categories slightly.

Cases in which the disability consists of total blindness are permanent total disabilities in the receipt of \$100 awards. Impaired eyesight has been to such an extent in 16 cases as to render the disability to be classed as permanent and total. Blindness in one eye eventually places the disability as permanent and partial unless the other eye is also very seriously affected. Other sight impairments have occurred, making both temporary total and temporary partial disabilities.

Of the external injuries, as might be expected, the great majority are of a minor nature. Still, we note 1,434 amputations and 1,368 dismemberments. The 535 cases placed in the category of "other major injuries" are of somewhat uncertain classification; most of them are paralysis cases where very little information is given as to the cause of the paralyzed condition; whether external or internal. Probably many of them should be under the group "locally diseased." Over two-thirds of the minor injuries are in the unspecified group "injured," these if distributed, would markedly affect the number of arm and leg cases.

Ankylosis is the principal definitely known condition among the "locally diseased" group. Among the "internally diseased," tuberculosis, heart disease and mental disease are the outstanding causes of the diseased condition. Only three-fourths of these "internally diseased" are still active cases.

The distribution of the permanent partial disability cases among the general divisions based on variation of physical disablement presents quite dissimilar results from the distribution of the other classes of disability. Those internally diseased constitute but 7 per cent, and the deaths and recoveries but .8 per cent of the total of those suffering permanent partial disability. This permanent partial disability group is the classification toward which all the disabilities except the permanent total will gravitate as time goes on. It will contain the net living human wastage of the war, and while it will show the most growth, the present indications are that it will not become very large. Permanent disability and vocational training cases increased from about 5 per cent to 10 per cent of the total up to June 30, 1919. The cases in which the loss of limbs was suffered are not relatively numerous among those "externally injured."

The permanent total disability cases will be diminished by death. The ranks of those disabled by tuberculosis and heart disease are being rapidly diminished by death. Those suffering from mental diseases will probably linger the longest.



## XXIX. CHANGES IN COMPENSATION AWARDS.

The bases for compensation awards are largely dependency and temporary disability—for out of the 58,127 cases only 1,588 cases concern permanent disabilities, which change or are terminated because of death. As a result there are many changes constantly occurring in compensation awards. The reasons for the changes in compensation awards are enumerated in Table 86, with a further notation of the number of changes arising under each reason. These changes may either increase or decrease an award, and a single case may appear several times in the same or different reason groups.

## COMPENSATION—DEATH AND DISABILITY CASES.

TABLE 86.—Reasons for changing the amounts of awards.

Reason for change of award.	Death.	Disability.	Total.
Child born.....	674	127	801
Awardee died.....	138	195	333
Vocational training accepted.....		1,460	1,460
Divorce.....		7	7
Awardee no longer dependent.....	9	9	18
Awardee married.....		244	244
Wife remarried.....	88		88
Awardee of age.....	30	12	42
Misconduct of awardee.....	3	1	4
Nurse in attendance or not.....		35	35
Temporary partial cases:			
Earning capacity changed.....		203	203
Became temporary total.....		882	882
Became permanent total.....		2	2
Became permanent partial.....		24	24
Temporary total cases:			
Became permanent partial.....		458	458
Became permanent total.....		38	38
Became temporary partial.....		2,868	2,868
Permanent partial cases:			
Earning capacity changed.....		7	7
Became temporary total.....		34	34
Became temporary partial.....		4	4
Change in law.....		250	250
Other changes in physical status.....		8	8
No reason recorded.....	5	21	26
Total.....	947	6,889	7,836

## Reasons for Changing Awards in Death Cases.

	Per cent.
Child born.....	71.2
Awardee died.....	15.4
Wife remarried.....	8.6
Awardee of age.....	3.1
Awardee no longer dependent.....	.9
Awardee misconduct.....	.3
No reason recorded.....	.5

DIAGRAM 80.—Analysis of the reasons monthly payments have been changed in compensation claims awarded on account of death.

Reasons for the changes occurring in awards made in death cases are concerning variations in the status of dependency or of death of beneficiaries. The comparison of the groups is made in diagram 80.

Nearly three-fourths of the changes are due to the birth of children. This change increases dependency and consequently the award. The remaining groups occurring are changes operating to decrease the

#### Reasons for Changing Awards in Disability Cases.

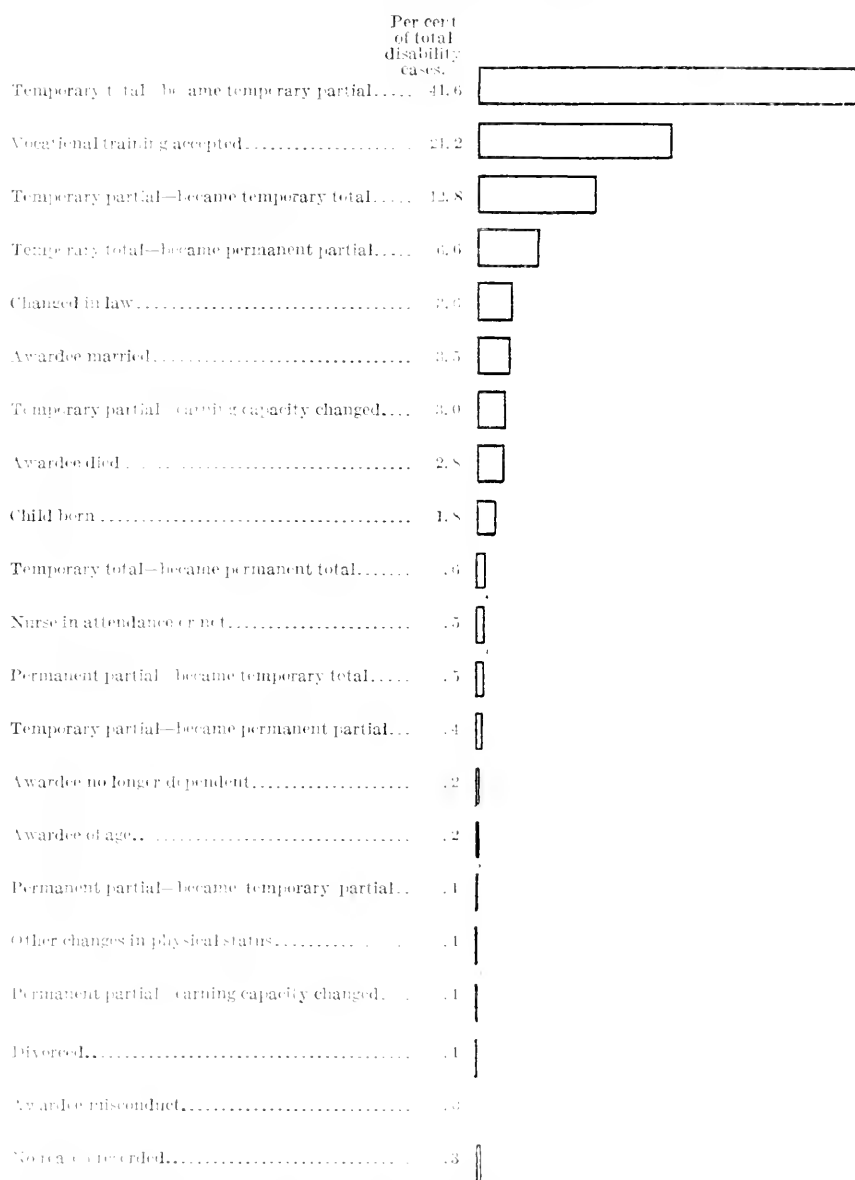


FIGURE 81.—Applies to the reason monthly payments have been changed in compensation claims awarded on account of disability.

amount of the awards. Reasons for changes occurring among the disability cases include those among death cases as well as many others due to the change in the physical status of the disabled person.

Diagram S1 presents those reasons in the order of the magnitude of the groups.

Such changes as that from a temporary total to a temporary partial status, and that from a temporary total to a permanent partial status, and as divorce, decrease the compensation award, while such changes as that from a temporary partial to a temporary total status and as awardee married, increase the award. Other reasons, as changes in earning capacity and as the securing or the dismissal of a nurse, may either decrease or increase awards.

The exposure of cases under observation in the compensation study has been made after the last changes of awards, of beneficiaries, etc., have been made, and has consisted of all cases whether the cases now have active awards running or whether the awards have been terminated. The analysis, in other words, consists of the exposure of active and terminated cases in their final status. Very few of the cases, with the exception of certain permanent disability cases, have

#### Distribution of Awarded Claims.



	Death.	Permanent total.	Permanent partial.	Temporary total.	Temporary partial.	Receiving vocational training.
As originally awarded....	43.2	0.8	1.4	51.8	2.1	0.7
As finally awarded.....	43.4	.8	2.0	45.6	5.1	2.8

DIAGRAM S2.—The total number of compensation claims awarded showing the distribution of cases according to death and the various extents of disability as originally awarded and the change of that distribution as finally awarded.

maintained the status which was held when the compensation was originally awarded.

Diagram S2 pictures the change in the distribution of the cases among the six groups considered in the compensation study as they were originally awarded and as they were at June 30, 1919, for active cases or at the date of termination for closed cases. Two noticeable phases are here brought to light—the permanent total disabilities have remained practically unchanged and the other groups have all been increased at the expense of the temporary total disability group.

#### XXX. CASES FOR WHICH NO AWARD HAS BEEN MADE.

A number of cases have arisen for which no award of compensation could be made. Some of these claims show clearly that no award can be made in accordance with the war risk insurance act and are therefore disallowed. Other cases have developed from reports of death or disability, erroneous or otherwise, where there was no claim for compensation. Such cases are closed and no award is made, though any or all such cases may be reopened at any time. Some claims which have been disallowed are of such a nature that they also may be reopened.

The 50,855 claims which have not been allowed compensation are presented in table S7 showing the reasons for disallowance.

## COMPENSATION—DEATH AND DISABILITY CASES.

TABLE 87.—*Claims on which awards have been disallowed.*

Reasons for disallowance.	Death.	Disability.	Total.
Disability less than 10 per cent. ....		2,302	2,302
Not in service since Oct. 6, 1917. ....	48	134	182
Never in service. ....	77	309	386
Death or disability not result of service. ....	289	199	488
Parents not dependent. ....	43,144		43,144
No relatives in permitted class. ....	3,633		3,633
Willful misconduct. ....	214	96	310
Suicide—not in line of duty. ....	369		369
Beneficiary morally undeserving. ....	12		12
Beneficiary alien enemy. ....	29		29
Total. ....	47,815	3,040	50,855

Over 90 per cent of the disallowed death cases were given an adverse verdict for the reason that the parents were not dependent, and in nearly 8 per cent of the cases there were no relatives entitled to benefits. In the majority of these cases the bureau had opened the case upon a notice of death and immediately thereafter forwarded requests to persons concerned in the case for statements of dependency and relationship. The answers usually were simple statements showing no dependency or a relationship not covered in the act with no request for compensation. In nearly 76 per cent of the disallowed disability cases the disabled person was not disabled to the extent of 10 per cent of a total disability.

## COMPENSATION—DEATH AND DISABILITY CASES.

TABLE 88. *Cases filed for which there was no claim and for which there is no award.*

Reasons.	Death.	Disability.	Total.
Still in the service (erroneously reported dead or disabled). ....	1,686	1	1,687
No claim made. ....	10,746	2,243	12,989
Unable to locate claimant. ....	133	37	170
Claims withdrawn. ....	195	387	582
Total. ....	12,760	2,668	15,428

The 15,428 cases in which no compensation awards were made are covered in Table 88. All these cases have arisen from the consideration of notices of a death or of a disability as a claim. An attempt has been made to locate possible claimants in death cases and to compensate all those disabled in the service when the disability is covered under the law.

Table 89 summarizes all cases which have not been awarded compensation.

## COMPENSATION—DEATH AND DISABILITY CASES.

TABLE 89.—*Cases recorded for which there is no award.*

Reasons.	Death.	Disability.	Total.
Disallowed claims. ....	47,815	3,040	50,855
No claim made. ....	12,760	2,668	15,428
Total. ....	60,575	5,708	66,283

## APPENDIX.

### ORDER OF TABLES.

#### INSURANCE.

1. Total claims received and disposed of.
2. Age of the insured—Contract insurance.
3. Age of the insured—Automatic insurance.
4. Age of the insured—Contract and automatic insurance.
5. Relationship of the beneficiary to the insured—Contract and automatic insurance.
6. Policy amount—Contract insurance.
7. Duration of policy—Contract insurance.
8. Date of death or disability—Contract insurance.
9. Date of death or disability—Automatic insurance.
10. Date of death or disability—Contract and automatic insurance.
11. Date of death and organization—Contract insurance.
12. Date of disability and organization—Contract insurance.
13. Date of death and organization—Automatic insurance.
14. Date of disability and organization—Automatic insurance.
15. Organization of the insured—Contract insurance.
16. Organization of the insured—Automatic insurance.
17. Organization of the insured—Contract and automatic insurance combined.
18. Date of death and organization—Contract and automatic insurance.
19. Date of disability and organization—Contract and automatic insurance.
20. Causes of death or disability—Contract and automatic insurance.
21. Diseases of the respiratory system—Contract and automatic insurance.
22. Causes of death or disability and organization—Contract and automatic insurance.
23. Rank of the insured and organization—Contract and automatic insurance.
24. Causes of death with rank of the insured in the Army—Contract and automatic insurance.
25. Causes of disability with rank of the insured in the Army—Contract and automatic insurance.
26. Causes of death with rank of the insured in the Marine Corps—Contract and automatic insurance.
27. Causes of disability and rank of the insured in the Marine Corps—Contract and automatic insurance.
28. Causes of death and rank of the insured in the Navy—Contract and automatic insurance.
29. Causes of disability and rank of the insured in the Navy—Contract and automatic insurance.
30. Causes of death and rank of the insured in the Coast Guard—Contract and automatic insurance.
31. Causes of disability and rank of the insured in the Coast Guard—Contract and automatic insurance.
32. Country—Contract insurance.
33. Country—Automatic insurance.
34. Country—Contract and automatic insurance, combined.
35. Cause of death and country—Contract and automatic insurance.
36. Cause of disability and country—Contract and automatic insurance.
37. Cause of death in the United States and the date of death—Contract and automatic insurance.
38. Cause of death in France and the date of death—Contract and automatic insurance.
39. Cause of death in the British Isles and the date of death—Contract and automatic insurance.
40. Cause of death at sea and the date of death—Contract and automatic insurance.
41. Cause of death in Germany and the date of death—Contract and automatic insurance.
42. Cause of death in the United States with organization—Contract and automatic insurance.

43. Cause of death in France with organization—Contract and automatic insurance.
44. Cause of death in the British Isles with organization—Contract and automatic insurance.
45. Cause of death at sea with organization—Contract and automatic insurance.
46. Cause of death in Germany with organization—Contract and automatic insurance.
47. Cause of disability of insured who have died or are still alive.
48. Physical condition of disabilities.
49. Cause of disability with the resulting condition.
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52. Deaths in and out of the service—Contract and automatic insurance.
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56. Cases on which awards have been terminated—Contract and automatic insurance.
57. Date upon which awards have been terminated—Contract insurance.
58. Date upon which awards have been terminated—Automatic insurance.
59. Date upon which awards have been terminated—Contract and automatic insurance combined.
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61. Duration of awards in which payments have been terminated—Automatic insurance.
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63. Awarded claims active on June 30, 1919—Contract and automatic insurance.

#### COMPENSATION.

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71. Organizations.
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73. Causes of death and of disability.
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77. Dates of termination of compensation awards.
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82. \$100 and \$30 awards to permanent total disabilities.
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85. Disabled who have died and who have recovered.
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7. Age groups of the insured.
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10. Contract and automatic insurance beneficiaries combined.
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13. Comparison of fathers with other beneficiaries.
14. Comparison of wives with other beneficiaries.
15. Comparison of principal beneficiaries with others.
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19. Date of death or disability—Automatic insurance.
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21. Date of disability.
22. Dates of death and disability.
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24. Date of death or disability by organizations.
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26. Principal organizations showing separation of cases into death and disability.
27. Principal organizations showing separation of cases into contract and automatic insurance.
28. Average policy amounts for principal organizations.
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30. Contract and automatic insurance showing the separation of cases into traumatism and diseases.
31. Influenza.
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35. The principal causes of death.
36. Principal diseases and traumatism causes.
37. Principal organizations showing separation of cases into traumatism and diseases.
38. Army rank.
39. Navy rank.
40. Rank in all organizations.
41. Traumatism and diseases in the Army by rank.
42. Traumatism and diseases in the Navy by rank.
43. The country in which death or disability occurred.
44. Country, showing separation of cases into traumatism and diseases.
45. Battle deaths in France.
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47. Influenza in the Army, in the United States and in France.
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54. Death out of the service showing the cases of previous disability.
55. Death out of the service for which reawards have and have not been made.
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#### COMPENSATION.

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64. Disability beneficiaries.
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66. Date of disability.
67. Dates of death and disability.
68. Organizations.
69. Principal organizations.
70. Causes of disability.
71. Principal causes of death and disability.
72. Army and Marine Corps rank.

73. Reasons for terminating awards in death cases.
74. Reasons for terminating awards in disability cases.
75. Death cases and the various extents of disability cases, active and terminated.
76. Physical condition of permanent total disabilities.
77. Physical condition of temporary total disabilities.
78. Physical condition of permanent partial disabilities.
79. Deaths and recoveries.
80. Reasons for changing awards in death cases.
81. Reasons for changing awards in disability cases.
82. Change of distribution of awarded claims.

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(PUBLIC—No. 104—66TH CONGRESS.)

(H. R. 8778.)

An Act to amend and modify the War Risk Insurance Act.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That the office of the Commissioner of Military and Naval Insurance and the office of the Commissioner of Marine and Seamen's Insurance created by the War Risk Insurance Act are hereby abolished and the powers and duties pertaining to such offices are hereby transferred to the Director of the Bureau of War Risk Insurance, who shall hereafter receive a salary at the rate of \$7,500 per annum. Until such time as the Secretary of the Treasury may direct otherwise, and subject to the provisions of section 9 of the War Risk Insurance Act, there shall be in the Bureau of War Risk Insurance a Division of Marine and Seamen's Insurance and a Division of Military and Naval Insurance. All laws inconsistent with this section are hereby so modified as to conform to the provisions hereof.

SEC. 2. That paragraph (b) of the second subdivision (1) of section 22 of the War Risk Insurance Act is hereby amended to read as follows:

"(b) A child legally adopted."

SEC. 3. That paragraph (d) of the second subdivision (1) of section 22 of the War Risk Insurance Act is hereby amended to read as follows:

"(d) An illegitimate child, but, as to the father only, if acknowledged in writing signed by him, or if he has been judicially ordered or decreed to contribute to such child's support, or has been judicially decreed to be the putative father of such child."

SEC. 4. That section 22 of the War Risk Insurance Act is hereby amended by inserting therein immediately following subdivisions (4) and (5), respectively, two new subdivisions to be known as subdivision (4a) and subdivision (5a) and to read as follows:

"(4a) The terms 'father' and 'mother' include stepfathers and stepmothers, fathers and mothers through adoption, and persons who have stood in loco parentis to a member of the military or naval forces at any time prior to his enlistment or induction for a period of not less than one year: *Provided*, That this subdivision shall be deemed to be in effect as of October 6, 1917."

"(5a) The terms 'brother' and 'sister' include the children of a person who, for a period of not less than one year, stood in loco parentis to a member of the military or naval forces of the United States at any time prior to his enlistment or induction, or another member of the same household as to whom such person during such period likewise stood in loco parentis: *Provided*, That this subdivision shall be deemed to be in effect as of October 6, 1917."

SEC. 5. That section 23 of the War Risk Insurance Act is hereby amended by the addition thereto of a new paragraph to read as follows:

"If any person entitled to receive payments under this act shall be an inmate of any asylum or hospital for the insane maintained by the United States, or by any of the several States or Territories of the United States, or any political subdivision thereof, and no guardian or curator of the property of such person shall have been appointed by competent legal authority, the director, if satisfied after due investigation that any such person is mentally incompetent, may order that all moneys payable to him or her under this act shall be held in the Treasury of the United States to the credit of such person. All funds so held shall be disbursed under the order of the director and subject to his discretion, either to the chief executive officer of the asylum or hospital in which such person is an inmate, to be used by such officer for the maintenance and comfort of such inmate, subject to the duty to account to the Bureau of War Risk Insurance and to repay any surplus at any time remaining in his



hands in accordance with regulations to be prescribed by the director; or to the wife (or dependent husband if the inmate is a woman), minor children, and dependent parents of such inmate, in such amounts as the director shall find necessary for their support and maintenance, in the order named; or if at any time such inmate shall be found to be mentally competent, or shall die, or a guardian or curator of his or her estate be appointed, any balance remaining to the credit of such inmate shall be paid to such inmate, if mentally competent, and otherwise to his or her guardian, curator, or personal representatives."

SEC. 6. That the provisions of section 28 of the War Risk Insurance Act shall not be construed to prohibit the assignment by any person to whom converted insurance shall be payable under Article IV of such act of his interest in such insurance to any other member of the permitted class of beneficiaries.

SEC. 7. That a new section is hereby added to the War Risk Insurance Act, to be known as section 31, and to read as follows:

"SEC. 31. That if after induction by the local draft board but before being accepted and enrolled for active service, the person died or became disabled as a result of disease contracted or injury suffered in the line of duty and not due to his own willful misconduct involving moral turpitude, or as a result of the aggravation, in the line of duty and not because of his own willful misconduct involving moral turpitude, of an existing disease or injury, he or those entitled thereto shall receive the benefits of compensation payable under Article III: *Provided*, That any insurance application made by a person after induction by the local draft board but before being accepted and enrolled for active service shall be deemed valid."

SEC. 8. That the second paragraph of section 204 of the War Risk Insurance Act is hereby amended to read as follows:

"The family allowance shall be paid from the time of enlistment to death in or one month after discharge from the service, but not for more than four months after the termination of the present war emergency. No family allowance shall be made for any period preceding November 1, 1917. The payment shall be subject to such regulations as may be prescribed relative to cases of desertion and imprisonment and of missing men."

SEC. 9. That a new section is hereby added to Article II of the War Risk Insurance Act, to be known as section 211, and to read as follows:

"SEC. 211. That all family allowances and allotments payable by the Bureau of War Risk Insurance under the authority of this article shall be discontinued at the end of the fourth calendar month after the termination of the present war emergency, as declared by proclamation of the President of the United States, and thereafter all allotments of pay shall be voluntary and shall be made under such regulations as may be prescribed by the Secretary of War and the Secretary of the Navy, respectively."

SEC. 10. That the second paragraph of subdivision (g) of section 301 of the War Risk Insurance Act is hereby amended to read as follows:

"If death occur or shall have occurred subsequent to April 6, 1917, and before discharge or resignation from service, the United States shall pay for burial expenses and the return of body to his home a sum not to exceed \$100, as may be fixed by regulations."

That section 301 of the War Risk Insurance Act, as amended, shall be deemed to be in effect as of April 6, 1917: *Provided, however*, That before compensation thereunder shall be paid there shall first be deducted from said sum so to be paid the amount of any payments such person may have received by way of gratuities or payments under pension laws in force and existence between April 6, 1917, and October 6, 1917.

SEC. 10a. That section 300 of the War Risk Insurance Act is hereby amended to read as follows:

"SEC. 300. That for death or disability resulting from personal injury suffered or disease contracted in the line of duty, by any commissioned officer or enlisted man, or by any member of the Army Nurse Corps (female) or of the Navy Nurse Corps (female) when employed in the active service under the War Department or Navy Department, the United States shall pay compensation as hereinafter provided; but no compensation shall be paid if the injury or disease has been caused by his own willful misconduct; *Provided*, That for the purposes of this section said officer, enlisted man, or other member shall be held and taken to have been in sound condition when examined, accepted, and enrolled for service: *Provided further*, That this section, as amended, shall be deemed to become effective as of April 6, 1917."

SEC. 11. That section 302 of the War Risk Insurance Act is hereby amended to read as follows:

"SEC. 302. That if disability results from the injury—

"(1) If and while the disability is rated as total and temporary the monthly compensation shall be the following amounts:

"(a) If the disabled person has neither wife nor child living, \$80.

"(b) If he has a wife but no child living, \$90.

"(c) If he has a wife and one child living, \$95.

"(d) If he has a wife and two or more children living, \$100.

"(e) If he has no wife but one child living, \$90, with \$5 for each additional child.

"(f) If he has a mother or father, either or both dependent on him for support, then, in addition to the above amounts, \$10 for each parent so dependent.

"(2) If and while the disability is rated as partial and temporary, the monthly compensation shall be a percentage of the compensation that would be payable for his total and temporary disability, equal to the degree of the reduction in the earning capacity resulting from the disability, but no compensation shall be payable for a reduction in earning capacity rated at less than 10 per centum.

"(3) If and while the disability is rated as total and permanent the rate of compensation shall be \$100 per month: *Provided, however,* That the loss of both feet, or both hands, or the sight of both eyes, or the loss of one foot and one hand, or one foot and the sight of one eye, or one hand and the sight of one eye, or becoming helpless and permanently bedridden, shall be deemed to be total, permanent disability: *Provided further,* That for double, total, permanent disability the rate of compensation shall be \$200 per month.

"(4) If and while the disability is rated as partial and permanent the monthly compensation shall be a percentage of the compensation that would be payable for his total and permanent disability equal to the degree of the reduction in earning capacity resulting from the disability, but no compensation shall be payable for a reduction in earning capacity rated at less than 10 per centum.

"A schedule of ratings of reductions in earning capacity from specific injuries or combinations of injuries of a permanent nature shall be adopted and applied by the bureau. Ratings may be as high as 100 per centum. The ratings shall be based, as far as practicable, upon the average impairments of earning capacity resulting from such injuries in civil occupations and not upon the impairment in earning capacity in each individual case, so that there shall be no reduction in the rate of compensation for individual success in overcoming the handicap of a permanent injury. The bureau in adopting the schedule of ratings of reduction in earning capacity shall consider the impairment in ability to secure employment which results from such injuries. The bureau shall from time to time readjust this schedule of ratings in accordance with actual experience.

"(5) If the disabled person is so helpless as to be in constant need of a nurse or attendant, such additional sum shall be paid, but not exceeding \$20 per month, as the director may deem reasonable.

"(6) In addition to the compensation above provided, the injured person shall be furnished by the United States such reasonable governmental, medical, surgical, and hospital services and with such supplies, including wheeled chairs, artificial limbs, trusses, and similar appliances, as the director may determine to be useful, and reasonably necessary, which wheeled chairs, artificial limbs, trusses, and similar appliances may be procured by the Bureau of War Risk Insurance in such manner, either by purchase or manufacture, as the director may determine to be advantageous and reasonably necessary: *Provided,* That nothing in this Act shall be construed to affect the necessary military control over any member of the military or naval establishments before he shall have been discharged from the military or naval service.

"(7) Where the disabled person and his wife are not living together, or where the children are not in the custody of the disabled person the amount of the compensation shall be apportioned as may be prescribed by regulations.

"(8) The term 'wife' as used in this section shall include 'husband' if the husband is dependent upon the wife for support.

"(9) That the Bureau of War Risk Insurance is hereby authorized to furnish transportation, also the medical, surgical, and hospital services and the supplies and appliances provided by subdivision (6) hereof, to discharged members of the military or naval forces of those Governments which have been associated in war with the United States since April 6, 1917, and come within the provisions of laws of such Governments similar to the War Risk Insurance Act, at such rates and under such regulations as the Director of the Bureau of War Risk Insurance may prescribe; and the Bureau of War Risk Insurance is hereby authorized to utilize the similar services, supplies, and appliances provided for the discharged members of the military and naval forces of those Governments which have been associated in war with the United States since April 6, 1917, by the laws of such Governments similar to the

War Risk Insurance Act, in furnishing the discharged members of the military and naval forces of the United States who live within the territorial limits of such Governments and come within the provisions of subdivision (6) hereof, with the services, supplies, and appliances provided for in such subdivision; and any appropriations that have been or may hereafter be made for the purpose of furnishing the services, supplies, and appliances provided for by subdivision (6) hereof are hereby made available for the payment to such Governments or their agencies for the services, supplies, and appliances so furnished at such rates and under such regulations as the Director of the Bureau of War Risk Insurance may prescribe.

"(10) That section 302 of the War Risk Insurance Act as amended shall be deemed to be in effect as of April 6, 1917: *Provided*, That any person who is now receiving a gratuity or pension under existing law shall not receive compensation under this Act unless he shall first surrender all claim to such gratuity or pension."

SEC. 12. That section 401 of the War Risk Insurance Act is hereby amended to read as follows:

"SEC. 401. That such insurance must be applied for within one hundred and twenty days after enlistment or after entrance into or employment in the active service and before discharge or resignation, except that those persons who are in the active war service at the time of the publication of the terms and conditions of such contract of insurance may apply at any time within one hundred and twenty days thereafter and while in such service: *Provided*, That any person in the active service on or after the 6th day of April, 1917, and before the 11th day of November, 1918, who while in such active service made application for insurance after the expiration of more than one hundred and twenty days after October 15, 1917, or more than one hundred and twenty days after entrance into or employment in the active service, and whose application was accepted and a policy issued thereon, and from whom premiums were collected, and who becomes or had become totally and permanently disabled, or dies or has died, shall be deemed to have made legal application for such insurance and the policy issued on such application shall be valid. Any person in the active service on or after the 6th day of April, 1917, and before the 11th day of November, 1918, who, while in such service, and before the expiration of one hundred and twenty days after October 15, 1917, or one hundred and twenty days after entrance into or employment in the active service, becomes or has become totally and permanently disabled, or dies or has died, without having applied for insurance, shall be deemed to have applied for and to have been granted insurance, payable to such person during his life in monthly installments of \$25 each; and any person inducted into the service by a local draft board after the 6th day of April, 1917, and before the 11th day of November, 1918, who, while in such service, and before being accepted and enrolled for active military or naval service, becomes or has become totally and permanently disabled, or dies or has died, without having applied for insurance, shall be deemed to have applied for and to have been granted insurance, payable to such person during his life in monthly installments of \$25 each. If he shall die either before he shall have received any of such monthly installments or before he shall have received two hundred and forty of such monthly installments, then \$25 per month shall be paid to his widow from the time of his death and during her widowhood; or if there is no widow surviving him, then to his child or children; or if there is no child surviving him, then to his mother; or if there is no mother surviving him, then to his father, if and while they survive him: *Provided, however*, That no more than two hundred and forty of such monthly installments, including those received by such person during his total and permanent disability, shall be so paid. The amount of the monthly installments shall be apportioned between children as may be provided by regulations: *Provided further*, That each officer and enlisted man attached to the United States ship Cyclops on the 4th day of March, 1918, and every officer and enlisted man who on said date was a passenger on said vessel shall be deemed to have been granted insurance in the sum of \$5,000 permitted under the War Risk Insurance Act."

SEC. 13. That the permitted class of beneficiaries for insurance as specified in section 402 of the War Risk Insurance Act is hereby enlarged so as to include, in addition to the persons therein enumerated, uncles, aunts, nephews, nieces, brothers-in-law and sisters-in-law of the insured. This section shall be deemed to be in effect as of October 6, 1917: *Provided*, That nothing herein shall be construed to interfere with the payment of the monthly installments authorized to be made under the provisions of said War Risk Insurance Act, as originally enacted and subsequently amended, up to and including the second calendar month after the passage of this act: *Provided further*, That all awards of insurance under the provisions of the said War Risk Insurance Act, as originally enacted and subsequently amended, shall be revised as

of the first day of the third calendar month after the passage of this Act, in accordance with the provisions of the said War Risk Insurance Act as modified by this amendatory Act.

SEC. 14. That if no person within the permitted class of beneficiaries survive the insured, then there shall be paid to the estate of the insured the monthly installments payable and applicable under the provisions of Article IV of the War Risk Insurance Act.

SEC. 15. That if any person to whom such yearly renewable term insurance has been awarded dies, or his rights are otherwise terminated after the death of the insured, but before all of the two hundred and forty monthly installments have been paid, then the monthly installments payable and applicable shall be payable to such person or persons within the permitted class of beneficiaries as would, under the laws of the State of residence of the insured, be entitled to his personal property in case of intestacy; and if the permitted class of beneficiaries be exhausted before all of the two hundred and forty monthly installments have been paid, then there shall be paid to the estate of the last surviving person within the permitted class the remaining unpaid monthly installments.

SEC. 16. That if no beneficiary within the permitted class be designated by the insured as beneficiary for converted insurance, granted under the provisions of Article IV of the War Risk Insurance Act, either in his lifetime or by his last will and testament, or if the designated beneficiary does not survive the insured, then there shall be paid to the estate of the insured the remaining unpaid monthly installments; or if the designated beneficiary survives the insured and dies before receiving all of the installments of converted insurance payable and applicable, then there shall be paid to the estate of such beneficiary the remaining unpaid monthly installments.

SEC. 17. That the Bureau of War Risk Insurance may make provision in the contract for converted insurance for optional settlements, to be selected by the insured, whereby such insurance may be made payable either in one sum or in installments for thirty-six months or more. The bureau may also include in said contract a provision authorizing the beneficiary to elect to receive payment of the insurance in installments for thirty-six months or more, but only if the insured has not exercised the right of election as hereinbefore provided; and even though the insured may have exercised his right of election, the said contract may authorize the beneficiary to elect to receive such insurance in installments spread over a greater period of time than that selected by the insured.

SEC. 18. That all premiums paid on account of insurance converted under the provisions of Article IV of the War Risk Insurance Act shall be deposited and covered into the Treasury to the credit of the United States Government life insurance fund and shall be available for the payment of losses, dividends, refunds, and other benefits provided for under such insurance. Payments from this fund shall be made upon and in accordance with awards by the director.

The Bureau of War Risk Insurance is hereby authorized to set aside out of the fund so collected such reserve funds as may be required, under accepted actuarial principles, to meet all liabilities under such insurance; and the Secretary of the Treasury is hereby authorized to invest and reinvest the said United States Government life insurance fund, or any part thereof, in interest-bearing obligations of the United States and to sell the obligations for the purposes of the said fund.

SEC. 19. That the amount of the monthly installments of allotment and family allowance, compensation, or yearly renewable term insurance which has become payable under the provisions of the War Risk Insurance Act but which has not been paid prior to the death of the person entitled to receive the same may be payable to the personal representatives of the deceased person.

Approved, December 24, 1919.







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